The Northwestern Miller

ALMANACK NUMBER

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In Two Sections
Section One

APRIL 25, 1930

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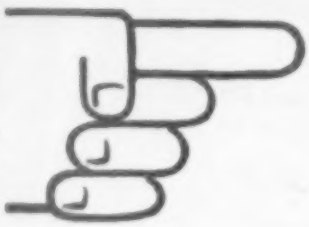

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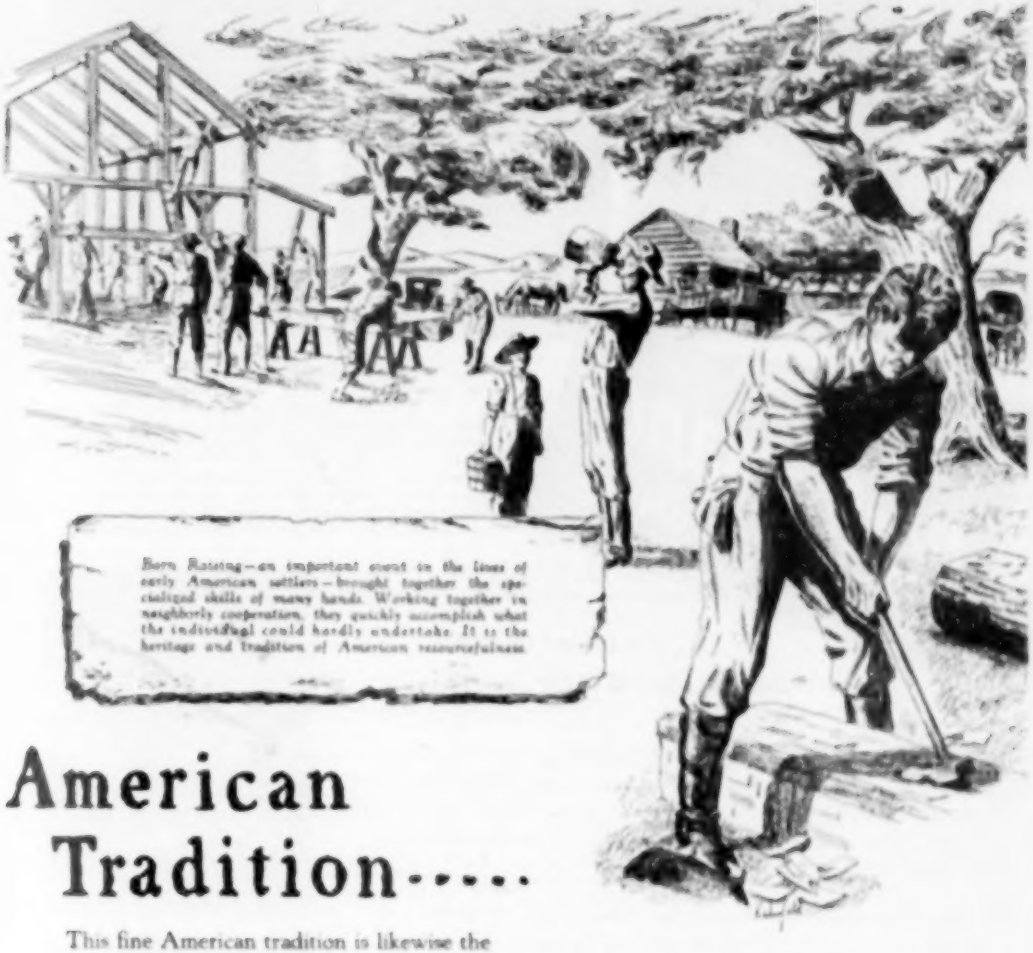

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2. START OF DRAW Bow is held with relaxed grip. Right elbow held fairly high with arm and arrow forming a straight line.
3. FULL DRAW—AIMING Upper bowstring should bisect the nose and chin. Right hand anchored under chin. Lean into arrow.
4. THE RELEASE After release, be sure to follow-through by holding the full draw position until the arrow strikes the target.
5. THE RESULT Bull's-eye counts nine points, next circle seven points, next circles count five, three and one respectively.

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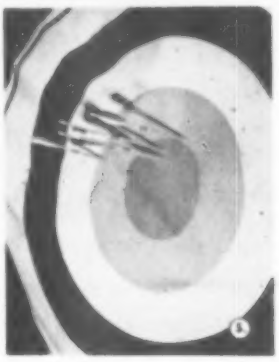
Your experienced Commander-Larabee representative is ready and able to help you with your particular baking problems and flour needs. Consult him on his next call. And remember, when performance counts, choose quality . . . choose a Commander-Larabee Flour!



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GENERAL OFFICES MINNEAPOLIS • 2 • MINNESOTA

Nationwide Continental Strike Looms

New York City's "Import Tax" Outlawed

NEW YORK—That section of this city's gross receipts tax law which had levied a so-called "city import tax" on out-of-town business firms shipping merchandise here has been outlawed. The section was abolished last week-end when Gov. Thomas E. Dewey placed his signature on the Griffith Bill recently passed by the state legislature.

The tax of ⅛ of 1% on gross sales had been assessed against out-of-city firms which did not maintain an office stock of goods or any employees in New York, but which made sales through local independent agencies or brokers.

There is some misunderstanding as to exactly how this change will affect taxes on all types of mill shipments. However, lacking authoritative interpretation, trade representatives here believe that mill offices will be relatively unaffected, but that the tax probably will be changed on shipments to brokers and jobbers with stocks on hand.

WHEAT RESEARCH GROUP TO HOLD FIRST MEETING

OKLAHOMA CITY—The first annual meeting of the Oklahoma Wheat Research Foundation will be held in Oklahoma City May 5 in the Sooner Room of Hotel Huckins. The meeting will begin at 10 a.m. and all segments of the state's wheat industry, including producers, elevator managers and millers are invited to attend.

Sandy Saunders, farm reporter for radio station WKY, will be the luncheon speaker. He will report on wheat growing as he saw it on his recent trip to South America. Plans for the campaign to obtain funds to conduct research in wheat breeding will be outlined and discussed. It is expected that a decision will be made as to whether the Oklahoma group should become affiliated with the recently formed National Association of Wheat Growers.

For the purpose of this first annual meeting, any person who declared his intention to contribute or who represents an elevator or flour mill that intends to contribute will be considered as a member.

Advance registrations for the luncheon are necessary and should be made with Keats E. Soder, secretary, Oklahoma Wheat Research Foundation, 312 Hightower Bldg., Oklahoma City.

FIRE HITS FLOUR FIRM

CHICAGO—The North Shore Flour & Supply Co., 709 Chicago Ave., Evanston, suffered a loss by fire April 17. All of Evanston's fire equipment and seven Chicago fire companies were called to fight a swiftly spreading fire.

UNION STEPS UP FIGHT FOR SINGLE CONTRACT WITH CHAIN

Continental Baking Co. States Feeling That International Will Attempt Coast-to-Coast Strike to Prove Power—Strike Vote Directed

A widespread strike against plants of the Continental Baking Co. whose contracts expire this spring is threatened as the Bakery and Confectionery Workers International Union of America presses its campaign for negotiation of a single nationwide contract with the largest chain bakery in the country.

The strike strategy committee of the Continental Baking division of the union, meeting in Chicago April 11-12, directed that an immediate secret ballot strike vote be conducted by those local unions whose contracts expire on or before May 1.

The Continental baking division of the union has notified some state authorities that, negotiations having been stalemated, it intends to use its "economic power" against the Continental Baking Co. This has been interpreted as filing of a strike notice and has cleared the way for the union to strike May 1 or shortly thereafter.

M. Lee Marshall, chairman of the board of Continental, issued a statement April 21 in which he reported that "every evidence we have had from the international indicates that they fully expect to square off and get industry-wide bargaining or attempt to strike our employees from coast to coast to prove they have the power."

"If this happens, and our plants are closed down, we will simply have to chalk it up to the cost of preventing labor monopoly in an industry that hasn't had, and doesn't want any kind of monopoly," Mr. Marshall said.

Early Showdown Seen

Thus, a showdown in the union's campaign to force company-wide bargaining on the baking industry is rapidly approaching. The situation has stalemated contract negotiations in several areas throughout the country.

Still pending in some areas are the charges of unfair labor practices filed by bakery employers' groups against local unions. The charges are being investigated by regional officials of the National Labor Relations Board.

In ordering the strike vote, the union charged that the Continental Baking Co. "continues to refuse to negotiate on the basis of the contract proposals as drafted and approved at the February contract conference" and that the company "continues to refuse to recognize the Continental baking division" of the union.

When international constitutional requirements have been met, the union announced, the strike date will be set by the officers of the Continental baking division of the union. In the meantime, the union ordered that "no local union can or will make an individual settlement or agreement with the Continental Baking Co. under any circumstances."

Importance Recognized

The importance of the outcome of the situation is readily recognized by baking industry employers throughout the country.

Herman E. Cooper, attorney for the international union in New York, has been reported as commenting that if the union succeeds with its plan to force the Continental Baking Co. to negotiate a single nationwide contract "there would be no problem with the others."

Sen. Thomas Would Earmark ECA Funds for Buying U.S. Surpluses

WASHINGTON — As the Senate opened debate on the amendment to the Economic Cooperation Administration Act, efforts have been made to earmark the use of funds for the ECA agricultural budget to surplus U.S. farm commodities.

First of these efforts came from Sen. Elmer Thomas (D., Okla.), who announced he planned to introduce an amendment to the ECA bill which would restrict the use of ECA agricultural commodity funds to U.S. surpluses or for the procurement of commodities from U.S. sources when their prices were lower than the domestic price support level. The Thomas proposal would set up a mandatory standard within the ECA Act.

The other planned amendment along this line came from Sen. John L. McClellan (D., Miss.) to earmark the ECA agricultural budget only for the procurement of domestic market surpluses when the Secretary of Agriculture found supplies to be in surplus in the U.S. Sen. McClellan introduced a similar amendment last session but it was defeated by a narrow margin.

Sen. Thomas said his amendment was aimed to halt the procurement of Canadian wheat through use of ECA money.

Neither amendments are conceded any chance of success since other agricultural interests with Canadian business involved are certain to fight this type of restriction on ECA. It is unlikely that ECA for the coming year will find it necessary to finance as large a part of the U.K. wheat requirements from Canada as was necessary this past year. ECA officials say that the U.K. has been building up its credits in Canada, but it is believed that the ECA budget contemplates some wheat procurement from Canada for the U.K. in the 1950-51 year. Denial of the use of ECA funds for this purpose might provoke counter-measures by Canada against imports of U.S. grown fruits and vegetables and these producers are unlikely to sit idly by while the Thomas or McClellan amendments are considered.

In fact, with the shrinking prospects for the winter wheat crop, the need to restrict U.K. procurement of wheat to the U.S. may be largely academic by the time Congress finally considers the ECA Act.

Distributors Complete Plans for Convention May 7-9 in Boston

BOSTON — Plans have virtually been completed for the 31st annual convention of the National Association of Flour Distributors, which will be held in the Hotel Statler, Boston, May 7-9. This will be the first time that the New England Association of Flour Distributors has acted as host to this convention. A large attendance is expected.

A number of local associations have already appointed their delegates and alternates for the convention, and the rest will do so soon. All flour distributors in the country are invited to attend the convention, whether members of the association or not.

The convention will start with a cocktail party Sunday afternoon, May 7. In the evening the directors of the national organization will meet, as will the various convention committees.

Monday morning will be devoted to a business session, which will include reports of officers and other business matters. A luncheon will be held Monday noon. Arrangements for speakers for these two sessions are being completed.

The Tuesday afternoon session will be another business meeting with reports of the association's standing committees and discussion periods. The reports of the resolutions, auditing and nominating committees will also be made at this time. Officers for the coming year will be elected.

The annual banquet and entertainment will be held Monday evening. The newly elected officers will be installed at that time.

On Tuesday morning the new board of directors will meet. The delegates and visitors will have the day free for sightseeing trips in historic Boston and the surrounding territory.

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IWA Policies Blamed for Export Drop

MULROY LETTER TO CCC HEAD CITES FAULTS OF PROGRAM

Chairman of MNF Agriculture Committee Criticizes Procedures Which Permit Other Nations to Capture Export Flour Markets

Defects in the government's policies which affect trade under the International Wheat Agreement are blamed for "strangling the export flour business" by M. F. Mulroy, Russell-Miller Milling Co. executive vice president and chairman of the agriculture committee of the Millers National Federation.

This criticism is included in a letter sent to Ralph S. Trigg, president of the Commodity Credit Corp., April 12 and published this week by the MNF. While specifically aimed at the subsidy policy of the IWA operations, the letter also reviews the related weaknesses of the farm program and the dangers inherent in the mounting U.S. wheat surplus.

"You are dooming the International Wheat Agreement to failure by not using realistic quality differentials that will induce importers to buy our soft winter wheat and flours and hard winter wheat and flours," Mr. Mulroy charges.

These quality differentials, he states, should be adequate to permit millers to maintain and increase export flour business.

The disadvantage of U.S. exporters, caught in a squeeze between high price support wheat levels and an inadequate subsidy, is illustrated in the letter by a comparison of Canadian and U.S. sales in the first year of the IWA's operation. As of April 4, it is pointed out, Canada had sold 83.6% of its quota while the U.S. had sold only 57.5% of its quota.

Fail to Get Results

The MNF agriculture committee which Mr. Mulroy heads has met frequently with government officials in an attempt to halt the decline in exports. Not too much has been gained by these talks, however, as indicated by this comment in the letter to Mr. Trigg:

"Whenever we try to obtain relief, there seems to be some mysterious influence that prevents us from getting our problem considered by anyone who can do anything about it."

No reply from Mr. Trigg had been received up to April 24. The text of Mr. Mulroy's letter follows:

The reports coming out of Washington are that the whole farm program and the International Wheat Agreement are doomed to failure and nothing is apparently being done to make either program effective. Of course, the present farm program will fail if surpluses are allowed to pile up to a point where it will no longer be possible to find storage space. The bread that is not consumed this month will not be consumed next month, and each month that an adequate outlet for our wheat and flour is not made available means that much additional surplus that will be very costly to the American taxpayer when it finally has to be

M. F. Mulroy

sold by dumping it at prices importers will pay.

You are dooming the International Wheat Agreement to failure by not using realistic quality differentials that will induce importers to buy our soft winter wheat and flours and hard winter wheat and flours. Your price support program practically equalizes the prices of all our different wheat varieties, but no importer will buy our low protein soft and hard winter wheats or flour made from these wheats at the same price or at prices too close to high protein hard spring wheat or flour made from this wheat. The IWA price is based on No. 1 Manitoba spring wheat that will test at least 13.50% protein. Our soft and hard winter wheats that represent our exportable surplus will range from 8 to 11% protein. You can sell some soft winter and some hard winter wheat at nominal discounts under No. 1 Manitoba when we furnish the money. We cannot sell the flour made from these wheats in a free market where finances are not a factor unless our prices are enough under the prices for flour made from No. 1 Manitoba to represent the quality differentials to the buyer.

World Price Cited

There is a world price for wheat outside of IWA countries and this price prevails in IWA countries that have completed their quotas. There has been no provision to equalize our prices (controlled by your support price) with this world price and, therefore, we cannot sell flour to any of these countries. When a country completes its quota, we are automatically ruled out of coming even close to competitive prices of other exporting countries. This enables other countries to build up their brands and we have to start all over again when next year's quotas are established.

During the war we were requested

(Continued on page 24)

Flour Distributors Announce Speakers for Convention

BOSTON—The National Association of Flour Distributors, which will hold its 31st annual convention at the Hotel Statler, Boston, May 7 to 9, has announced that one of the speakers at the first business session will be E. C. Johnson, president of the Boston Chamber of Commerce.

Mr. Johnson is widely known throughout industrial New England, and will speak about conditions in that area.

At the Monday noon luncheon, A. Harris Kenyon, chief inspector, U.S. Food & Drug Administration, Boston, will discuss insect fragmentation in flour, proper care of freight cars for flour shipment and what flour distributors may do to keep their warehouses in proper condition to prevent infestation.

—WHAT IS THE STATE OF LIFE—

CANADIAN STOCKS DOWN

WINNIPEG—Total stocks of Canadian wheat, oats, barley, rye and flax were all lower at the end of March than on the corresponding date last year. Stocks of wheat at the end of March totaled 250,100,000 bu., as compared with 262,500,000 at the same time in 1949. The estimated amount held on Canadian farms at March 31 this year was 111,700,000 bu. Of the 138,300,000 bu. in commercial positions, 58,800,000 bu. was held in country elevators, interior private and mill elevators and interior terminal elevators.

Varied Program Planned for MNF "Mid-Century" Meeting May 15-17

CHICAGO—A varied and interesting agenda touching on the past, present and future of the milling industry will be offered at the 48th annual meeting of the Millers National Federation, May 15-17, at the Edgewater Beach Hotel.

Topics highlighting the speakers' schedule include "Flour Export Problems in the Orient," "Business and Government Relations—1950," and "The Welfare State." A testimonial dinner honoring Fred J. Lingham, twice president of the federation and veteran miller of Lockport, N.Y., marks the eve of the formal sessions and sets the stage for a series of educational and historical exhibits to be used for the first time at any convention.

Federation officials point out that with these added incentives, plus the announcement of a national Democratic party rally to be held concurrently in Chicago, hotel reservations for the convention have been running well ahead of 1949. The federation has issued an urgent request to all mill executives, asking for immediate action to reserve accommodations. The pinch in hotel space for the period is already apparent, they say.

The preliminary convention program lists the following principal events to take place during or in conjunction with the Mid-Century Meeting:

The annual meeting of the Flour Millers Export Assn. is the only meeting scheduled for May 14.

The board of directors of the federation will hold its meeting May 15. The testimonial dinner for Mr. Lingham will be held in the East Lounge of the Edgewater Beach Hotel.

A meeting of the grain grades committee of the federation will be held at 8 a.m., May 16. The full convention session will be called at 10:30 a.m. in the East Lounge. John L. Locke, Fisher Flouring Mills Co., Seattle, retiring president of the federation, in his valedictory address will review his recent experiences in the Orient while working on flour export problems.

Herman Fakler, vice president and Washington representative of the federation, will follow Mr. Locke on the program with an address, "Trends in Relationships of Business and Government."

The afternoon session of the full convention will convene at 2 p.m. and the program will be devoted to a discussion of ways and means of keeping wheat flour foods in the minds of consumers. Details of the session will be announced later.

The Millers Singing Society will hold its annual meeting at 4 p.m., May 16.

The morning session May 17 will be a closed session of the full convention.

Dr. Lawrence M. Gould, president of Carleton College, Northfield, Minn., will be the principal speaker at the luncheon. His subject will be "The Welfare State as I See It." Dr. Gould has attracted national attention and commendation for his opposition to socialistic trends.

PAUL ROTHWELL TO SPEAK AT DINNER

CHICAGO—Paul Rothwell, president of the Bay State Milling Co., will be the principal speaker at the testimonial dinner honoring Fred J. Lingham, scheduled for the evening of May 15 during the annual meeting of the Millers National Federation. J. S. Green, Williams Bros. Co., Kent, Ohio, will be master of ceremonies.

Philippines Set Procedure for IWA Imports

WASHINGTON—Rules and regulations governing the import of flour by the Philippines under the International Wheat Agreement have been established by the newly-created Philippine Wheat Flour Board, the U.S. Department of Commerce reports.

Twenty per cent of the Philippines' total guaranteed annual purchases of flour will be reserved for PRATRA (Philippine Relief and Trade Rehabilitation Administration) for the purpose of stabilizing prices. The remaining 80% will be distributed on a quarterly quota basis to be determined by PRATRA.

Quotas will be divided among direct consumer importers, qualified dealer importers and other importers. Quotas for direct consumer importers will be established in accordance with data provided in applications presented to PRATRA, plus consumption requirements for the previous 12 months as shown on books of accounts or abstracts duly attested to by certified public accountants.

Quotas for dealer importers will be established on the basis of information appearing on applications as vertified by PRATRA. The new procedure went into effect April 17.

BREAD IS THE STAFF OF LIFE

COTTON GOODS INDEX 17.08

Bemis Bro. Bag Co.'s cotton goods index, a composite figure reflecting wholesale price of principal cotton cloth used in bag making expressed in cents a yard of cloth, is 17.08, compared with 16.61 a year ago. The Bemis composite figure reflecting duty paid for early shipment from Calcutta of lightweight and heavyweight burlaps expressed in cents a pound of cloth is 25.25 compared with 24.01 a year ago. The current index is based on Calcutta ceiling prices plus a permitted 5% commission.

BREAD IS THE STAFF OF LIFE

Igleheart to Add 2 Million Bushels Storage at Mill

EVANSVILLE, IND. — Construction will be started immediately on new grain storage and handling facilities with a capacity of 2 million bushels at the Igleheart Bros., Inc., plant, a division of General Foods, Inc. The new structure will be located on property adjoining the plant here.

Earl Heseman, general manager of the Igleheart Bros. division, in making the announcement, said that these new facilities were necessary "in order to better service the 10 company-owned elevators operated within a radius of 60 miles of Evansville.

Truck unloading dumps, capable of handling 25,000 bu. of grain an hour, will be installed. "The new grain receiving facilities will be able to take in wheat, cob corn or soybeans as fast as the trucks can be driven on to the hydraulically operated unloading platforms," Mr. Heseman said.

Mr. Heseman added that at the same time, another 25,000 bu. per hour could be unloaded from boxcars on a car dump. More than one half mile of railroad sidings will be installed to accommodate the boxcar traffic which will be handled by a diesel locomotive.

Preliminary work has shown that it will be necessary to sink more than 175,000 feet of concrete piling to support foundations for the structure.

Bids for the main construction will be invited in June. Arthur Koenig, a member of the General Foods manufacturing and engineering department, will act as project engineer.

Final design for the installation is being made by the Macdonald Engineering Co., Chicago. It is estimated that the new storage facility will be ready for use in June, 1951.

BREAD IS THE STAFF OF LIFE

KENTUCKY, MEMPHIS BAKERS PLAN MEETING ON MAY 10

FRANKFORT, KY. — Howard C. Bowles, field director of the Kentucky Chamber of Commerce, will be the guest speaker at the May 10 joint meeting of the Kentucky Master Bakers Assn. and the Memphis Retail Bakers Assn. A color film on cake decorating will also be shown, through the courtesy of the Wilton School of Cake Decorating.

WHEAT PRODUCERS ORGANIZE INTO NATIONAL ASSOCIATION

Rep. Clifford R. Hope Stresses Importance of Commodity Associations When So Much of the Trade Is Under Control of Government Agencies

KANSAS CITY—The National Association of Wheat Growers was organized officially in Kansas City, April 21, following a series of preliminary meetings held at several points in the west in recent weeks. About 150 delegates from various western states were present at the Kansas City meeting, together with a number of visitors and observers from allied industries.

The objectives of the association are to further the interests of wheat growers, and the attendance in Kansas City was heavy from the large scale wheat farming areas of the high plains.

Adding encouragement to the formation of the group has been Clifford R. Hope, Republican congressman from western Kansas, and Congressman Hope was on hand at the opening session at the Phillips Hotel to deliver the keynote address.

"In my opinion the formation of this organization is long past due," Mr. Hope said, "because heretofore there has been no commodity group specifically to represent the wheat grower in Washington. Distributors and processors of wheat have their national associations, and other commodities such as livestock and citrus fruits have producer organizations. It is true that general farm organizations have spoken for the wheat producer, but their work is not confined to wheat alone.

"I do not want to minimize the efforts of general farm groups, however, it has been demonstrated to me in my dealings with congressional and federal hearings in Washington that general farm organization fields are broad and they cannot take definite stands on specific commodities.

"Wheat producers have spoken individually but in most instances they are divided in opinion. I believe that a general opinion, representative of all wheat growers, would be more helpful in promoting their ideals and policies. This is most important now at a time when so much of the trade is under government control. The future of wheat growers depends upon government policy."

In addition to carrying the thoughts on wheat policies to the government, Mr. Hope pointed out the advantages of such an association in furthering all types of wheat research and education.

About 150 delegates from the states of Missouri, Kansas, Colorado, New Mexico, Texas, Oklahoma, North Dakota, Oregon, Nebraska and Illinois attended the meeting. A nonpartisan group, the association also had asked Democratic Representative William R. Poage from Texas to speak, but the congressman was unable to work the meeting into his schedule since he had only recently returned from a trip abroad.

In its statement of policy the association declared it had no intention of infringing upon the work of state and national associations which include wheat research and wheat policies in their programs, but it will augment what is being done today and be a representative for strictly wheat producers. Organizers of the National Association of Wheat Growers also are members of such groups as state grain and feed associations, the Western Kansas Development Assn., wheat improvement groups and the Oregon Wheat Commission. Both private and cooperative businessmen are represented.

BREAD IS THE STAFF OF LIFE

Hutchinson Grain Merchants Join Kansas Campaign Against Weevils

HUTCHINSON, KANSAS—Hutchinson grain merchants and the banks of Hutchinson have joined forces with the Kansas Wheat Improvement Assn. and the Kansas Wheat Quality Council in this year's intensified effort to curb weevil infestation in stored wheat, Jess B. Smith, wheat improvement association president, has announced.

This significant development in the Kansas campaign came after a series of conferences last week between the Hutchinson businessmen and the association. Huge losses have been suffered, particularly by farmers, due to the ravages of grain devouring insects, and the backing of local grain trade and allied interests is expected to strengthen the anti-weevil program.

"It has been demonstrated these pests can be controlled," Mr. Smith remarked after the meeting, "and much, if not all of the damage and losses can be avoided if strict precautions are employed, ridding the sources of infestation from farm bins and surrounding premises before harvest and fumigating the new wheat after it is put into the cleaned granaries. This is the program which Hutchinson intends to promote."

Nationwide attention has been drawn to the infestation fight being carried on in Kansas. Several weeks ago Mr. Smith outlined the Kansas program before a group of government officials in Washington at the invitation of M. L. Wilson, director of the Agricultural Extension Service. Attending the meeting were top directors in the Grain Branch of the Production and Marketing Administration, the Food and Drug Administration, the Bureau of Entomology and Bureau of Plant Industry.

The presentation stimulated considerable interest among the officials and it is reported that Mr. Wilson will advocate similar programs in other states.

The next step in the campaign in the Hutchinson area will be a meeting to be held May 10. Farm agents from 32 central and southwestern Kansas counties will be invited.

It is planned to instruct the extension agents on methods of treating farm bins with insecticides. Cooperating with the Kansas Wheat Improvement Assn. and the Agricultural Extension Service in this work are the Kansas Wheat Quality Council and Kansas State College.

O. J. Zimmerman

AOM PRESIDENT—O. J. Zimmerman, assistant director of manufacture, General Mills, Inc., Minneapolis, and president of the Association of Operative Millers, will preside at the organization's annual convention to be held at Hotel Jefferson, St. Louis, May 1-5.

PENNSYLVANIA FEED MEN PLAN SPRING MEETING

GREENVILLE, PA. — The annual spring meeting and ladies' night of the Northwestern Pennsylvania Feed Assn. will be held at Schuster's here May 9 at 7:30 p.m., according to a recent announcement by H. E. Casgrain, secretary-treasurer.

Ray B. Bowden, executive vice president, Grain & Feed Dealers National Assn., will be a featured speaker at the program.

SELF-RISING FLOUR INSTITUTE HEARS SALES PLAN DISCUSSED

Advantages of Grocery Products Sales Council Plan for Promoting Family Flour Outlined at Institute Convention—Officers Named

BILOXI, MISS.—Members of the Self-Rising Flour Institute, Inc., considering means of promoting family flour sales, gave a major share of their attention to the Grocery Products Sales Council plan at their 16th annual convention here April 21-22.

Speakers explained and urged support of the sales council plan for boosting sales of family flour. Members discussed the plan and also mapped a campaign to "get flour up front" in retail outlets.

W. M. Skidmore, general sales manager, Yukon (Okla.) Mill & Grain Co., described the sales council plan and strongly recommended industry cooperation. W. T. York, general sales director, Royal, Barry-Carter Mills, Inc., Nashville, urged institute members to give careful consideration to the plan. And Allen R. Cornelius, who was reelected institute secretary, pointed to the plan as being a "good beginning of a new era for the family flour industry."

Officers Named

In addition to reelecting Mr. Cornelius at the close of the two-day meeting at the White House Hotel, the institute elected D. R. Gambill, Snell Milling Co., Nashville, as president, and Claude C. Cowan, Jr., Southland Mill & Elevator Co., Nashville, as treasurer. Mr. Gambill succeeds B. L. Davis, the Russell Co., Jackson, who was named vice president.

Named directors were L. A. Brooks, Cosby-Hodges Milling Co., Birmingham, Ala.; Jerry V. King, Keco Flour & Feed Co., McKenzie, Tenn.; Celian H. Lewis, Sunflower Mills, Inc., Indianola, Miss.; W. G. Jackson, Macon (Ga.) Flour & Grain Co., and Cohen T. Williams, Royal, Barry-Carter Mills, Inc., Nashville.

Registration for the convention totaled 67, including delegates' families.

Mr. Skidmore, who has been one of the leaders in boosting the sales council plan, said there was no question in his mind that every institute member would support the program if he looked at it optimistically and unselfishly.

"Even if we adopt a selfish viewpoint, it seems crystal clear that individually each of us will benefit beyond our contributions to the program," he added.

He pointed out that members of the family flour industry collectively could establish closer relations with grocers' organizations and related product manufacturers and thus promote increased sales of their flour.

(The sales council plan, to be carried out in the South and Southeast, was outlined in detail in the Jan. 17 and Feb. 21 issues of The Northwestern Miller.)

Mr. Skidmore said U.S. Bureau of the Census figures for domestic flour sales indicate that the breakdown is 55% bakery, 38% family and 7% commercial, industrial and end use not specified.

"There is a lot of family flour business," he declared, "and fortunately for us here, southern percentages are conceded much more favorable to family flour than the national figures."

In his talk, illustrated with slides, Mr. Skidmore cited surveys and quoted various authorities to show that family flour merchandising efforts are being increased.

Room for Optimism

"There is room for optimism in our business," he continued. "Given the proper spirit and a little ditch-digging effort, the future is not dull—it's bright—and this is a statement of fact which can be refuted only by blindly pessimistic conversation without factual basis."

Mr. Skidmore explained how the sales council would work with flour jobbers and retailers in improving flour merchandising and how Home Baking Centers would be set up in retail stores to promote flour and related item sales.

He pointed out that the sales council plan calls for a budget of $60,000 a year for a minimum of two years, with cooperating companies to contribute 1¢ for each sack of their flour sold in the area. He said it was decided that the family flour industry itself should finance the basic plan. But he predicted that related product manufacturers will match the industry's expenditures in the program.

For providing the "initial impetus" for the program, Mr. Skidmore praised the Self-Rising Flour Institute and the National Soft Wheat Millers Assn.

Benefits Cited

Following Mr. Skidmore's address, Mr. York urged members of the institute to give careful consideration to the grocery products sales council as presented by the speaker. Mr. York cited the benefits that individual members of the industry could derive from this plan.

Mr. York also outlined his experience in dealing with his company's jobbers and retailers and said that he felt sure that they would be agreeable to the plan and would readily cooperate in making it a success.

"It unquestionably would increase home baking," Mr. York said.

Mr. Cornelius stated that, while the plan described by Mr. Skidmore is not perfect, "it aims at just one of the many, many things the industry needs to induce the housewives to bake more. It can be a good beginning of a new era for the family flour industry if the industry wants to do something to sell more flour; for there is only one way our industry can, as an industry, sell more flour, and that is for the housewives to bake more flour—not eat more flour products."

Mr. Cornelius said that the self-rising flour industry looks upon the baker from a competitive standpoint rather than from an antagonistic standpoint. "The baker is our competitor, not our foe," the secretary said.

Mr. Cornelius said that there will be home baking of flour "long after the last of us here are gone" if the present trend continues. But, he added, "if the commercial baker is allowed to continue to entice the housewife into his bakeshop with only passive resistance from the family flour industry, many of those now in the business will find it unprofitable to remain in the game."

Movement Started

"I do not know whether or not you realize it," he continued, "but the action taken by our members at our meeting in Atlanta in October, 1948, set in motion a movement that has the possibility of preventing the selling of family flour from evolving itself into a battle of survival. From the action taken at that meeting came committees and more committees and more committees as well as meetings and more meetings.

"The work of these committees and these meetings was not always pleasant nor convenient but our representative, Cohen Williams, at his own expense, in addition to his contribution to the expense of the work, served on every committee and attended every meeting. I feel that the

CONTINUED ON PAGE 35

AT SELF-RISING FLOUR INSTITUTE MEETING—W. M. Skidmore, general sales manager, Yukon (Okla.) Mill & Elevator Co., is shown as he addressed the 16th annual meeting of the Self-Rising Flour Institute, Inc., at Biloxi, Miss., April 22. On the left is Allen R. Cornelius, Nashville, who was reelected secretary. And on the right is B. L. Davis, the Russell Co., Jackson, Miss., retiring president and new vice president.

Soybean Market Reacts to USDA Buying Activity

WASHINGTON—The volatile soybean market appears to have responded to the government procurement of beans for the army last week when the U.S. Department of Agriculture completed procurement of 455,000 bu. of beans for Japan. German bean requirements have been reopened, and an additional two cargoes of beans are expected to be authorized by the Economic Cooperation Administration within a short time. Procurement of these two additional cargoes will be through private trade.

Sellers of beans recently report that they have been obtaining delivery of beans from crushing plants. At present price levels for beans and the prices of oil and meal it is seen that all crushers except the solvent plants will find it more profitable to sell beans than to engage in crushing operations.

Government officials report a tightening supply situation in fats and oils and see further fuel under the current bull market boiler. They say that the supply-demand situation has been missed and that supplies are somewhat tighter than had been estimated. These officials forecast a strong price outlook for the next two months.

In addition to the soybean procurement by CCC within the past two weeks, Production and Marketing Administration added 134,000 bu. of rye through the Chicago office. No other grains or flour was purchased during the week ending April 21.

Total USDA soybean procurement since Oct. 1, 1949, through April 21 amounted to 3,394,069 bu.

Flour Package Law Enacted in Mississippi

JACKSON, MISS.—Mississippi is the 36th state to enact the basic features of the uniform flour package law. The bill was approved by the state's legislature prior to its recent adjournment.

The bill designed to amend the Mississippi enrichment law to require the use of enriched flour as the only means of enriching bread and rolls was not acted upon by the legislature. The bill, sponsored by the Mississippi Department of Agriculture, was the first reported legislative proposal in any state to require enriched flour as the only method of enriching bakery products.

CORNERSTONE CEREMONY FOR AIB BUILDING PLANNED

CHICAGO—The cornerstone laying ceremony for the new building of the American Institute of Baking, Chicago, will be held at 12 noon, Saturday, May 13, at the corner of East Ontario St. and McClurg Court, Chicago. All members of the institute and their friends are cordially invited to attend, the AIB emphasized. The ceremony will last approximately 30 minutes.

F. C. Bisson Speaks at Meeting of Chicago Flour Men

CHICAGO—F. C. Bisson, director of marketing research, Chicago Board of Trade, attracted a good attendance at a dinner meeting of the Chicago Association of Flour Distributors held the evening of April 21.

Mr. Bisson discussed the supply and demand situation on wheat, with particular emphasis on the changed picture on the winter wheat crop in the Southwest as the result of the drouth and greenbug infestation in that area. He told of the difficulty in attempting to control bushels by means of acreage restrictions.

Mr. Bisson mentioned, when discussing the Brannan plan, that for the time being only perishables are being considered, so there is no immediate threat of grains being included. He was quizzed as to the probable cost of the operation of the plan, and said that inasmuch as Washington is unwilling and unable to even make an estimate, it would be impossible for any one on the outside to even suggest a figure. He said that if no curbs were placed on production and if high parities continued, resulting subsidies on individual items could and would be tremendous in size, not to mention the cost of administering the law, as well as resultant repercussions on other related agricultural products.

He referred to a recent talk made by M. W. Thatcher, Farmers Union Grain Terminal, Minneapolis, on the subject of the reinstatement of storage allowances on wheat under government loan from 1950 crop, in which Mr. Thatcher stated that there would be storage payments on the new wheat crop just as there have been in every other wheat loan program since its inception, back in 1938.

Following his talk, Mr. Bisson answered a number of questions from the floor.

At the opening of the meeting George A. Shields, New Century Co., president, asked the members to rise as tribute to the memory of Harry Korzeniewski, who died recently. Mr. Korzeniewski was president of the organization in 1930 and had been an active member for many years.

The following were elected official delegates to the annual convention of the National Association of Flour Distributors, to be held in Boston, May 7-9: R. E. Bemmels, Bemmels-Vaughan; Wayne T. Wilson, Pillsbury Mills, Inc., and Walter Neumann, Charles S. Neumann & Co.

Alternates elected were D. C. Cregier, Hobart J. Thurter & Co., and Ward Miller, Sheridan Flouring Mills Co. In addition to the delegates, Harry W. Larsen, Habel, Armbruster & Larsen Co., president of the national association, and Mr. Shields, local president, will also attend the national convention.

The annual golf party and outing will be held June 13 at Rolling Green Country Club. Mr. Shields appointed the following committee to make all arrangements: N. G. Anderson, Bay State Milling Co., chairman; Ward Miller, Sheridan Flouring Mills Co.; J. Anderson, King Midas Flour Mills; E. Burke, H. C. Meining Co., and R. Schoedler, Vanderbilt Flour Co.

R. H. MONTGOMERY RESIGNS AS FMA VICE PRESIDENT

KANSAS CITY—Robert H. Montgomery has resigned as vice president of Flour Mills of America, Inc., and manager of the Goodlander Mills Co. division, Henry H. Cate, president of the flour milling company, announced this week.

Mr. Montgomery has not indicated his future plans but says he will continue to be associated with the milling industry.

Mr. Montgomery joined Kansas Flour Mills Company in 1941 as a sales executive and later became a vice president of Flour Mills of America and manager of the Goodlander Mill. Previously he was vice president of the Stanard-Tilton Milling Co. and manager of the firm's mill at Alton, Ill., until that business was sold to the Russell-Miller Milling Co. Prior to that he was for several years manager of the Commander-Larabee Milling Co. business in the Southwest, and later vice president and director of the Waggoner-Gates Milling Co., Independence, Mo.

—WEEK IN THE STAFF OF LIFE—

ALLIS-CHALMERS HOST TO CHICAGO MILLERS

MILWAUKEE—Members of the Chicago Millers Club were guests of the grain and chemical milling section, Allis-Chalmers Mfg. Co. April 20. The meeting was held at the A-C plant and there were about 40 of the club's members present.

The program started with a luncheon in the company's clubhouse, which was followed by a tour through the plant, including the testing and research laboratories and a stop at the basic industries section. Here the millers inspected mill equipment under construction.

The tour was concluded in the offices of the grain and chemical milling section where a short business meeting was held. R. C. Bartee, General Mills, Inc., president of the club, expressed the appreciation of the members for the luncheon and inspection tour. He also announced appointment of two committees to serve for the remainder of the year. E. J. Gehrig, Quaker Oats Co., will be chairman of the program committee and will be assisted by D. James, H. C. Knoke & Co., and S. O. Werner, The Northwestern Miller and Milling Production. A membership committee will be headed by E. C. Badenoch, S. Howes Co., Inc., assisted by Clayton Smith, Wallace & Tiernan Co., Inc.

Before adjournment, the staff of Allis-Chalmers showed a number of Kodachrome slides of various types of milling machinery, with Howard L. Beebe describing the equipment. H. K. Swan, manager of the grain and chemical milling machinery section, was assisted by Mr. Beebe, J. L. Neeman, J. J. Bickler, S. E. Bovin and A. T. Tremblin.

The next meeting of the club will be held in September.

R. K. Stritzinger

HONORED—Raymond K. Stritzinger, president of the Continental Baking Co., will be honored April 26 as an outstanding alumnus of Lehigh University at the annual "L-in-Life" dinner of the Lehigh Club of New York. The "L-in-Life" award is the highest honor which can be conferred upon an alumnus by the New York Club, the largest of the University's many alumni groups. The name of Mr. Stritzinger, a member of the Class of 1910 at Lehigh, will be engraved along with the names of previous winners of the award, on a large cup, a smaller replica of which will be presented to Mr. Stritzinger, together with a citation from the university.

Big Baking Industry Problems Predicted by M. Lee Marshall

By MARTIN E. NEWELL

Kansas City Manager
The Northwestern Miller

KANSAS CITY—The trials of the baking industry in the next few years may be greater than any yet surmounted, M. Lee Marshall, chairman of Continental Baking Co., New York, and chairman of the American Bakers Assn., told the bakers assembled at the Heart of America bakers convention held at the Hotel President here April 23-25.

About 600 registered on the opening day of the meeting which combined the conventions of the Nebraska, Kansas, Missouri, Oklahoma and Arkansas state organizations into one large gathering.

Mr. Marshall, speaking April 24, predicted that there would be "full war on three fronts" in the next few years for the baking industry. He named the three fronts as those of labor, competition and profits.

Labor Demands Reported

Referring to the bakery workers' union demand that Continental negotiate a single nationwide contract, Mr. Marshall said that baking was not a suitable industry for national bargaining for several reasons, and added that if Continental plants are closed down it will be in an effort to prevent a labor monopoly. Mr. Marshall charged that the nationwide contract drive is "an effort to develop greater power for the national officers of the union." To meet the challenge of labor monopoly in the years ahead bakers must be reasonable, sane and long-sighted in their dealings, he added.

There is a trend away from the use of wheat, the ABA board chairman said, due to a decline in heavy labor, and a wider variety of inexpensive foods. There will be more of this competition ahead, he declared, and the baking industry must constantly improve its products to meet it.

"Profits these days are not 'made,' they are 'salvaged,'" Mr. Marshall said. "The industry must be able to meet many increasing expenses and produce better products at no higher prices relatively. That means greater efficiency. From that efficiency must come whatever profits are obtained. If bakers get their prices out of line with other foods, they will rapidly lose business."

Bakers' Ads Discussed

Walter Hopkins, director of the Bakers of America Program, described recent developments in the industry drive to convert consumers to consumption of more bakery products. He pointed out that the current program permits separate advertising campaigns on bread, cake and other individual products. He mentioned the big sandwich display in the May issue of Good Housekeeping magazine and said that one of the leading ice shows next season would feature a number based on bakery products.

Following the opening conference the meetings split into wholesale and retail sessions, each devoted to special problems discussed by experts.

A large entertainment program was prepared by the committee in charge in hopes that a general satisfaction with the five-state convention idea would lay the foundation for a permanent combination of this kind, perhaps with additional states joining.

Warehouse Rates Under Storage Agreement to Remain Unchanged

WASHINGTON—Warehouse rates under the Uniform Grain Storage Agreement for the coming year will be the same as those in effect under the old document. This decision was reached last week by the Commodity Credit Corp. board of directors, and formal approval by the Secretary of Agriculture is considered certain.

The document as approved by the CCC board is basically the same document that was finally discussed by CCC officials and warehousemen at Chicago. No substantive changes have been made except to allow a uniform 1¼¢ bu. for direct transfer of grain. In the past, allowances for direct transfers of grain have varied between regions.

In line with an effort to establish uniform policies in regard to the storage agreement, officials here say that all interpretations of the provisions of the uniform storage agreement will be made at Washington and not by regional offices as in the past.

After the agreement has been finally approved by the Secretary of Agriculture, the transportation and storage branch of the U.S. Department of Agriculture plans to issue a handbook on the subject for use by grain warehousemen.

FLOUR SALES SHOW MODERATE GAINS ON GREATER INQUIRY

Mills in Southwest and Northwest Pick Up a Few New Contracts as Bakers Reach End of Supplies; Prices Steady to Easier

Business of flour mills remains substantially unchanged, although slightly higher sales totals were reported from principal milling centers. Buyers, who have very little flour for future needs booked at present, inquired more actively for supplies last week, but the individual amounts sold in most cases were small and needed almost immediately. Most bakery operators are holding their purchases to requirements for only a few weeks in advance. Some chain bakers were in the market for supplies, but again the contracts were for nearby shipment and thus involved smaller than usual amounts. Millers comment that the backlog of orders on their books are as low as they have ever been. Price quotations were steady to lower as a strong millfeed market offset advances in wheat costs.

EXPORT FLOUR SALES REMAIN LIMITED

The export market remained dull. The only European buyer was Portugal, which booked 1,100 tons of .7% ash clears. A few small sales of flour have been made to Costa Rica since that nation became eligible for the subsidy under the International Wheat Agreement. Business was based on letters of credit. Other Latin American trade is quiet.

SPRING MILLS SHOW HIKE IN VOLUME

Flour sales of spring wheat mills improved last week, averaging 59% of five-day capacity, compared with 41% the previous week and 51% a year ago (based on six-day capacity). Inquiry was more active than in the previous week, although the resulting sales did not fully correspond with the increased interest. A chain baking establishment booked its spring wheat flour needs for May, and other sales consisted of small lots for quick delivery. Most baking concerns continue to operate strictly on a hand-to-mouth basis. Family flour business was slow again, although directions picked up slightly. Backlogs on the books for all types of flour are at one of the lowest points ever reached, according to some industry spokesmen.

SALES VOLUME SHOWS GAIN IN SOUTHWEST

Larger sales to several chain bakers and a better volume of small orders improved business for mills in the Southwest last week. Sales averaged 65% of capacity, compared with 56% the previous week and 50% last year. A southeastern chain bought 50,000 sacks of flour early in the week and later a national chain booked May requirements of hard winters. Other sales included scattered small lots for immediate shipment. The strong millfeed market enabled mills to reduce prices of bakery flour in spite of higher wheat costs. Family flour business was only fair, and some round lots of specialty flour were sold. Operations of mills at Kansas City improved somewhat.

VOLUME BUYING DODGED IN EAST

In the metropolitan New York area flour sales continued slow as buyers avoided volume booking. Contracts were slim for nearby delivery as well as future shipment. In only a few transactions were requirements for a month covered. The exceptions to the generally slow trade were bookings of about 25,000 sacks by one chain and a fair amount by another. Mills at Buffalo need new sales to maintain present running schedules as business last week failed to improve the production outlook to any great extent. Buyers apparently are waiting for special prices to cover their needs.

Only limited lots of flour were booked at Boston as buyers continued to display a cautious attitude in the face of strong bullish market sentiment. Buying at Philadelphia continued on a hand-to-mouth basis. Mill representatives expect this policy to gain more followers since supplies are dropping and replenishments will be needed to maintain production schedules. The dimmer wheat crop outlook caused some concern, but dragging retail demand for baked goods restrained an appreciable activity. Flour sales increased slightly at Pittsburgh as bakers were forced to replenish their stocks. Prompt or immediate delivery was specified on most transactions, with delivery up to 30 days the maximum. "Bargain" offerings of flour were not as numerous and the price resistance of buyers diminished somewhat.

CENTRAL STATES SALES REDUCED

Slight improvement in interest was noted at Chicago, although buying was limited mostly to single-car purchases for immediate or nearby shipment. Such purchases were more numerous, however. Directions were slow to fair. Family flour sales were confined to small lots for replacement purposes. At St. Louis, mills report that new sales remain slow. But demand continues good for clears, and more interest is being shown in soft wheat flour because of an anticipated poor crop in Missouri and Illinois.

TRADE REMAINS QUIET IN SOUTH

In the South extremely quiet business prevailed. Only moderate quantities were sold at New Orleans for replacement or to fill needs for the balance of the month. Inquiry was fairly active, but prices bid were considered unfavorable by the mills. Hard winters showed the best volume, although spring volume picked up slightly. Soft winters were in poor demand, with cracker and cookie bakers reporting a production decline. Shipping directions fell off slightly.

BUSINESS SLOW IN PACIFIC N.W.

Flour sales lagged at Seattle, with warehouse stocks ample to take care of any probable domestic business. Export prospects remain bleak, although there are persistent rumors of a possible sale to the Philippines.

However, there are no definite indications as to when this business may develop.

FLOUR PRODUCTION SHOWS SLIGHT INCREASE

Flour production shows an increase of 9,534 sacks from the preceding week. Output of the mills reporting to The Northwestern Miller, representing 73.3% of the total flour production in the U.S. during November, the latest month for which census figures are available, amounting to 2,934,074 sacks compared with 2,924,540 in the previous week and 2,922,581 in the corresponding week of a year ago. Two years ago the figure was 3,396,224 and three years ago 3,826,970 sacks. There was an increase of 68,000 sacks in the flour production of the Southwest over the production of a week ago, 4,000 in the Central and Southeast and 10,000 in the North Pacific Coast while production declined 26,000 sacks in the Northwest and 47,000 in Buffalo.

Detailed reports of sales activity in the principal flour markets in the U.S. will be found on page 37.

Semolina Buying Hand-to-Mouth as Macaroni Business Slumps

A further reduction in semolina sales is noted this week as production of macaroni and noodle manufacturers continued to fall off seasonally.

A few manufacturers booked replacement lots, but buying interest generally was very limited. Sales consisted of a few cars at a time to carry out the hand-to-mouth operations of macaroni plants. At the same time, directions on contracts already made were slower.

Durum millers were paying higher prices for wheat early this week as receipts at Minneapolis fell off sharply because of floods and poor road conditions in the producing areas. The premium for fancy milling quality wheat ranged 7@8¢ over the May future April 24, bringing the cash price to about $2.35 bu., up 2¢ for the week.

Aided by a firm millfeed market, quotations on standard semolina April 24 were held at the levels quoted the previous week, $5.65@5.75 sack, bulk, Minneapolis.

Operations of durum mills declined to 56% of capacity last week, compared with 58% the previous week and 55% in the corresponding period a year ago.

Durum wheat prices delivered at Minneapolis, April 22, were as follows:

Fancy 2 Hd. Amb. or better	$2.34@2.36
Choice 2 Amber or better	2.24@2.32
Choice 2 Amber or better	2.22@2.27
Medium 2 Durum or better	2.21@2.24
Medium 2 Durum or better	2.19@2.23

DURUM PRODUCTS OUTPUT

Durum products output as reported to The Northwestern Miller by mills representing approximately 100% of the total U.S. durum capacity, in sacks with comparisons, percentage of capacity based on six-day week:

	No. mills	6 day wk. capacity	Wkly. production	% of capacity
April 16-22	8	194,000	113,550	58
Prev. week	11	237,000	*137,948	58
Year ago	12	255,000	141,574	55
			Crop year production	
July 1, 1949-April 22, 1950			7,796,837	
July 1, 1948-April 23, 1949			7,820,643	

*Revised.

MILLFEED MARKETS CONTINUE TO SOAR

Reduced Mill Production Meets Heavy Demand; Prices Gain $5@6 in Week

The millfeed market continues to soar, and prices are up $5@6 from the levels quoted a week ago. With the feeding season moving northward and demand for millfeed heavy, the reduced production is unable to fulfill buyers' requirements. Running time of flour mills has been cut in most areas because of relatively poor sales and a lack of sufficient order backlogs.

Further expansion in formula feed sales was noted in the Northwest, with the advance in ingredient markets apparently responsible for part of the greater buying interest.

The index of wholesale feedstuffs prices for the country as a whole, compiled by the Production and Marketing Administration, stood at 224.2 as of April 18, up 5 points for the week. The feed grain index was 301.6, unchanged from the previous week.

Chick starters continue to lead other types of feed in sales, and dairy business picked up for some manufacturing concerns, particularly for the lower protein rations. Hog feed sales remained only moderate.

Reaction to the government's decision last week to withhold price support on turkeys and poultry was rather mixed, although it appeared that the weight of opinion tended to accept the move as a step in the right direction. However, some grumbling from feeders was noted by dealers.

The spurt in sales this week has resulted in additional overtime runs at feed manufacturing plants, with some even scheduling Sunday production.

A strong spot demand for formula feeds was experienced by manufacturers in the Southwest during the fore part of last week, but later business slowed down somewhat. The slightly reduced sales pace was attributed to a normal reaction of the trade to removal of price supports on poultry and turkeys, and also to the steady advance in formula quotations.

Some mixers are puzzled this year by the fact that sales volumes are considerably above a year ago and yet orders on the books are not large. It is apparent that most buying is hand-to-mouth, yet the volume of such buying is on a scale which is larger than the term would seem to indicate. Manufacturers have remarked many times that they have had to scrape around for orders to fill the next day's operating schedules, yet by the end of the week overtime is required to satisfy last-minute sales.

Millfeed production by mills in the Northwest, the Southwest and at Buffalo, representing 75% of the combined flour milling capacities of those areas amounted to 43,940 tons last week, according to figures compiled by The Northwestern Miller. Production for the current week compares with an output of 43,814 tons in the week previous and 43,704 tons in a similar period a year ago. Crop year production to date totals 2,114,230 tons as compared with 2,312,360 tons in the corresponding period a year ago.

Wheat Markets Reach New High Marks for Season

Need for More Moisture, Spread of Greenbugs Dominate Reports; Futures Advance 2½@7c Bu.

Wheat markets reached new high marks for the season as bullish reports dominated the crop news. In the week ending April 24, futures quotations at Chicago gained 6@7¢ bu., Minneapolis 2½@5¢ and at Kansas City 3@6⅝¢. The advances were more pronounced on the distant deliveries at both Minneapolis and Kansas City, where the May futures were retarded by reports of greater liquidation of loan stocks of wheat. An improved milling demand and some export buying also helped to boost values, as did growing pressure on the U.S. Department of Agriculture to continue to pay storage charges on new crop loan wheat rather than require producers to do so as had been planned.

Closing prices for wheat futures at leading markets April 24 were: Chicago — May $2.31⅞@2.32, July 2.13⅜@2.13⅜, September $2.13⅛@2.13⅞, December $2.14½@2.14⅝; Minneapolis — May $2.28⅜, July $2.23⅜, September $2.15½, December $2.13⅞; Kansas City — May $2.26⅝@2.26½, July $2.10, September $2.10⅛, December $2.10⅛@2.10⅜.

Need More Rain

In the Southwest, recent crop reports indicate that additional moisture is needed to hold the gains made following the rains a week ago. Meanwhile, additional threats to the crop by the spreading greenbug invasion were given more attention. A private crop reporter warned of the spread of the insects to western Kansas. The same observer, A. W. Erickson, declared that 13 million acres of wheat in Kansas, Oklahoma, Texas and Colorado and New Mexico, or 65% of the acreage sown, are a total loss. He declared the 1950 crop is fast developing into the "worst wheat fadeout since 1935."

Meanwhile, progress in getting the spring wheat crop planted was delayed by continued wet weather and floods in some areas. Continued cold has delayed melting of snow in the northernmost sections, and through most of the section farmers have had to put off field work. However, not too much concern over the delay has been expressed as yet, as it is pointed out that mechanical equipment will enable farmers to get the seeding done rapidly once they are able to start the work.

Because of the damage experienced in the Southwest, particularly in Oklahoma and Texas, the USDA's Wheat Situation report notes that the transition of prices to a new crop basis may be postponed this year. Normally the shift develops about the middle of May. A report by the Commodity Credit Corp. that some 14 million bushels of loan wheat had been redeemed up to Feb. 28 came as something as a surprise to the trade. The relationship between loan and market values has improved since that time, and it is now believed that the amounts withdrawn from loan probably have increased considerably so that the amount defaulted to CCC at the end of April will be smaller than previously expected.

The Wheat Situation report estimates that wheat supplies during 1950-51, unless yields are greatly reduced, will be sufficient for domestic needs and exports of 300 million bushels and still leave a carryover of 500 million bushels at the end of the season. The surplus at the end of the current year is estimated by the government at 450 million bushels.

Export sales during the week included 1 million bushels to Portugal of No. 2 red wheat.

Floods Delay Marketing

Receipts of cash wheat remained light, with only 628 cars at Minneapolis and 698 at Duluth. Country advices of new shipments were also light, with impassable roads and flooded areas restricting marketings. At Minneapolis premiums on ordinary wheat and wheat up to 13% protein content held firm, with most demand centered on this kind. Trading basis on high protein wheat was barely steady to 1¢ lower, compared with the futures. Ordinary No. 1 dark northern spring wheat was quoted at 2@6¢ over the May price; 12 and 13% protein quoted 3@7¢ over, 14% 6@10¢, 15% protein 9@13¢ and 16% protein 12@16¢ over the May price. To-arrive bids were firm at only 1¢ under the spot basis. Average protein content of the hard red spring wheat tested at Minneapolis during the week was 13.50% and the durum 12.96%.

Premiums on choice to fancy milling durum were firm to 1¢ higher for the week, but the in-between and lower grades remained in narrow demand and trading basis on these kinds barely steady. No. 1 and 2 hard amber durum of fancy milling quality was quoted at 6@7¢ over the May; No. 1 and 2 amber durum, choice milling quality, May price to 5¢ over; No. 1 and 2 durum, medium milling quality 7¢ under to the May price; No. 1 red durum nominally 12¢ under May.

The following table shows the approximate range of cash spring wheat values at Minneapolis, April 22:

For Dry Sound Wheat

1 DNS or NS 58 lb.	$2.30@2.34
12.00% Protein	2.31@2.35
13.00% Protein	2.33@2.36
14.00% Protein	2.34@2.38
15.00% Protein	2.37@2.41
16.00% Protein	2.40@2.44

1¢ Premium for Heavy

Grade Discounts

Test weight—1¢ each lb. to 57 lb.
Damage—1¢ each 2 to 5% over 1%.

Demand Slow at K.C.

Continued strength due to adverse new crop conditions had its effect on wheat at Kansas City last week. Demand was rather limited because of slow milling operations, but receipts were small, holding selections down to a narrow choice. Nevertheless, with the initial movement of new wheat approaching, the premiums for cash wheat were declining. Ordinary No. 1 dark and hard premiums dropped from 5½@7¢ over at the start of the week to 3@4¢ over April 24. At the same time 12% protein declined to 3@4¢ over and 13% protein 3@5½¢ over. The May future upon which cash is based opened at $2.22⅝ April 17, reached a new high for the year of $2.26⅝ April 22 and closed at $2.26½ April 24. Thus the advance of the future offset declines in cash mark-ups, and there was little change in ultimate cash prices.

The following table shows the approximate range of cash wheat prices at Kansas City, April 22, protein content considered:

No. 1 Dark and Hard	$2.29¾@2.39⅛
No. 2 Dark and Hard	2.33⅛@2.38¾
No. 3 Dark and Hard	2.25⅝@2.38⅝
No. 4 Dark and Hard	2.27⅝@2.32⅞
No. 1 Red	2.33⅛@2.38⅞
No. 2 Red	2.31⅛@2.38⅞
No. 3 Red	2.29⅝@2.36⅞
No. 4 Red	2.25⅝@2.33⅞

At Fort Worth ordinary No. 1 hard winter wheat was reported selling April 24 at $2.47@2.48, delivered Texas common points, with no protein premium. Offerings are light, with demand fair.

CURRENT FLOUR PRODUCTION

★ ★ ★ ★ ★

A Statistical Service Provided Continuously for Readers of The Northwestern Miller for More Than Half a Century

WEEKLY FLOUR PRODUCTION, IN SACKS (CWT.)

Flour production in principal manufacturing areas by mills reporting currently to The Northwestern Miller, with relationships of production to capacity and to the total estimated output of all mills in the U.S. expressed in percentages:

	April 16-22, 1950	*Previous week	April 17-23, 1949	April 18-24, 1948	April 20-26, 1947
Northwest	587,071	583,434	490,445	718,414	819,739
Southwest	1,114,737	1,094,834	1,098,875	1,001,253	1,494,965
Buffalo	452,416	500,002	518,769	423,009	568,241
Central and Southeast	538,274	524,199	518,032	459,994	512,419
North Pacific Coast	224,488	201,744	252,384	321,890	240,716
Totals	2,934,974	2,824,149	2,912,541	3,396,224	3,326,879
Percentage of total U.S. output	73.5	73.3	72	78	68

*Revised.

	—Percentage of capacity operated in 6-day week—					Crop year flour production —July 1 to—	
	April 16-22, 1950	Previous week	April 17-23, 1949	April 18-24, 1948	April 20-26, 1947	April 22, 1950	April 23, 1949
Northwest	57	60	58	68	87	20,291,719	21,141,721
Southwest	71	67	87	96	97	51,464,087	61,155,784
Buffalo	85	84	78	79	80	22,498,710	22,340,431
Central and S. E.	56	47	66	59	66	21,909,147	25,724,094
No. Pacific Coast	53	52	52	83	90	16,198,035	14,027,089
Totals	65	62	68	74	84	132,424,787	152,462,664

SOUTHWEST

Kansas City

	6-day week capacity	Flour output	% activity
April 16-22	404,736	264,273	64
Previous week	405,726	265,216	66
Year ago	404,736	272,177	67
Two years ago	375,830	359,319	95
Five-year average			72
Ten-year average			70

Wichita

	6-day week capacity	Flour output	% activity
April 16-22	118,800	97,927	82
Previous week	118,800	91,537	77
Year ago	118,800	31,073	26
Two years ago	118,800	107,726	91
Five-year average			68
Ten-year average			68

Salina

	6-day week capacity	Flour output	% activity
April 16-22	100,200	76,865	77
Previous week	100,200	81,691	82
Year ago	100,200	90,220	90
Two years ago	100,000	86,609	87
Five-year average			84
Ten-year average			81

35 Representative Mills Outside of Kansas City, Wichita and Salina

	6-day week capacity	Flour output	% activity
April 16-22	1,001,166	732,539	73
Previous week	1,001,166	672,481	67
Year ago	1,001,166	706,132	71
Two years ago	964,632	828,458	87
Five-year average			77
Ten-year average			76

CENTRAL AND SOUTHEASTERN

Mills in Illinois, Ohio, Michigan, Indiana, Kentucky, North Carolina, Tennessee, Virginia, Georgia and eastern Missouri:

	6-day week capacity	Flour output	% activity
April 16-22	790,114	500,270	63
Previous week	785,114	*524,499	67
Year ago	766,944	516,921	68
Two years ago	729,166	430,000	59
Five-year average			61
Ten-year average			63

*Revised.

NORTHWEST

Minneapolis

	6-day week capacity	Flour output	% activity
April 16-22	334,598	199,349	60
Previous week	334,599	224,483	66
Year ago	361,334	193,694	51
Two years ago	378,000	246,175	65
Five-year average			64
Ten-year average			60

Principal interior mills in Minnesota, including Duluth, St. Paul, North Dakota, Montana and Iowa:

	6-day week capacity	Flour output	% activity
April 16-22	819,300	467,331	56
Previous week	819,450	*566,382	59
Year ago	812,400	406,947	61
Two years ago	666,600	474,665	71
Five-year average			62
Ten-year average			57

*Revised.

BUFFALO

	6-day week capacity	Flour output	% activity
April 16-22	546,000	463,414	85
Previous week	600,060	*500,002	81
Year ago	606,000	471,760	78
Two years ago	644,200	522,950	70
Five-year average			76
Ten-year average			72

*Revised.

PACIFIC COAST

Principal mills on the North Pacific Coast:

Seattle, Tacoma and Interior Washington Mills

	6-day week capacity	Flour output	% activity
April 16-22	245,600	127,423	53
Previous week	245,600	*118,173	49
Year ago	241,000	152,082	63
Two years ago	241,500	226,484	91
Five-year average			74
Ten-year average			76

*Revised.

Portland and Interior Oregon Mills

	6-day week capacity	Flour output	% activity
April 16-22	146,400	87,065	59
Previous week	146,400	85,114	58
Year ago	146,400	78,924	54
Two years ago	148,400	102,413	79
Five-year average			75
Ten-year average			74

MILLFEED OUTPUT

Production of millfeeds, in tons, for the current and prior two weeks, together with season total of (1) principal mills of Nebraska, Kansas and Oklahoma and the cities of Kansas City and St. Joseph; (2) principal mills of Minnesota, Iowa, North and South Dakota and Montana, including Minneapolis, St. Paul and Duluth-Superior; (3) mills of Buffalo, N.Y. Production computed on the basis of 72% flour extraction:

	—Southwest*—		—Northwest*—		—Buffalo†—		—Combined**—	
	Weekly production	Crop year to date	Weekly production	Crop year to date	Weekly production	Crop year to date	Weekly production	Crop yr. to date
April 16-22	23,484	1,085,541	11,667	548,461	8,409	419,729	43,560	2,111,736
Previous week	22,092		111,848		110,875		144,816	
Two weeks ago	22,924		10,919		10,114		44,019	
1949	22,166	1,252,894	15,154	611,503	8,290	448,192	45,791	2,312,589
1948	26,404	1,288,666	16,675	758,524	8,334	426,886	51,222	2,451,804
1947	26,291	1,202,179	17,478	746,557	11,914	425,499	55,688	2,374,424
1946††	23,828	1,087,900	16,991	733,384	6,615	435,631	51,487	2,267,494
Five-yr. average	24,475	1,161,283	15,090	664,662	5,922	424,591	46,488	2,309,541

*Principal mills. **71% of total capacity. †All mills. ††81% extraction basis effective March 1 to Sept. 1, 1946 (2) lb. millfeed accepted as yield of 100 lb. flour. ‡Revised.

—BREAD IS THE STAFF OF LIFE—

SPENCER KELLOGG PAYS 50c

BUFFALO, N.Y. — Directors of Spencer Kellogg & Sons, Inc., have declared a quarterly dividend of 50¢ a share, payable June 10 to stockholders of record May 12.

Woodrow R. Walton

WOODROW WALTON LEAVES KANSAS CITY PMA POST

KANSAS CITY—Woodrow R. Walton has announced his resignation as director of the Kansas City PMA Commodity Office to be a candidate for nomination for congressman on the Democratic ticket from the 7th Congressional District of Oklahoma, which comprises 11 counties in the southwestern part of the state. His resignation is effective April 25.

Mr. Walton's successor at Kansas City has not been announced, but John Cowan, assistant director, will be acting charge of the office.

Mr. Walton was born on a farm near Shattuck, Okla., where he owns and operates two farms. His parents were among the early Oklahoma pioneers who settled near Shattuck more than 50 years ago. He attended college at Columbus University, Washington, D.C., receiving a master's degree in law.

Mr. Walton has been associated with the Department of Agriculture for nearly 16 years, most of that time having been spent on price support and procurement operations. Before becoming director of the Kansas City PMA Commodity Office, he served as assistant director at Chicago from June, 1942, to December, 1948, with the exception of a period of war service with the Marine Corps. Previously he was employed by the Department of Agriculture in Washington, D.C., devoting six years to the cotton support program.

There are seven candidates for nomination for the 7th district now filled by Congressman Wickersham, who has drawn some sharp newspaper criticism. The election will be held July 4.

PAUL RUSSELL SUCCEEDS HAROLD PEASE AT LEGER

ALTUS, OKLA.—Harold Pease, who for the past decade has been general manager of the Leger Mill Co., Altus, Okla., will leave the milling company June 1 to assume active management of the Star Bakery in Wichita Falls, Texas. Mr. Pease purchased the bakery about two years ago and is making the change to devote all of his time to its development.

Paul Russell will succeed Mr. Pease as manager of the Altus mill. Mr. Russell has been sales manager at St. Louis for the Lawrence Milling Co., which recently completed a large new corn mill there. He has already moved to Altus.

Mr. Pease has been active in civic affairs in Altus, having served as president of the Chamber of Commerce and vice president of the Kiwanis Club and in 1946 was named Altus' "most useful citizen."

The Leger Mill Co. operates an 800 cwt. flour mill and a feed mill with a daily capacity of 250 tons.

MILLING TECHNOLOGISTS TO MEET IN ST. LOUIS

CHICAGO—Dr. Kenneth A. Arnold, St. Regis Paper Co., Oswego, N.Y., and T. S. Paulsen, vice president in charge of purchases, Russell-Miller Milling Co., Minneapolis, will be the principal speakers for the annual dinner meeting of the International Institute of Milling Technology to be held in connection with the convention of the Association of Operative Millers at Hotel Jefferson, St. Louis, May 1-5.

Henry G. Watson, Alexander Bros., Philadelphia, is president of IIMT. Other officers are Esli A. Marsh, St. Regis Paper Co., first vice president; David P. Swan, Dixie Machinery & Mfg. Co., St. Louis, second vice president, and Richard E. Miller, American Miller & Processor, Chicago, secretary.

P. H. LAWSON RETIRES; IN MILLING 58 YEARS

KANSAS CITY—The retirement of P. H. Lawson as general superintendent for Flour Mills of America, Inc., has been announced by officials of the company. Mr. Lawson was the honored guest at a dinner held here

P. H. Lawson

April 25 and given by the milling company in recognition of his 27 years of service.

The retired miller has been connected with the industry for the past 58 years. His father operated a mill at Gentryville, Mo., and after having learned the craft from his father, Mr. Lawson took his first job as a miller in a small mill at West Point, Iowa, in 1892.

He is a past president of the Association of Operative Millers and has been the author of articles dealing with milling subjects which have been published in the technical journals.

His plans for the immediate future include a visit with the family of his son, H. V. Lawson, Lone Oak, Texas.

Named to succeed Mr. Lawson as general superintendent was George S. O. Smith. Mr. Smith is in his own right a miller of national repute. He was a wartime president of the Association of Operative Millers, serving in 1944 and 1945. He moved to Kansas City four years ago to become assistant general superintendent of Flour Mills of America, Inc., properties. Previously he was superintendent of the Valier & Spies Milling Company, St. Louis.

BULLIS CITES PROBLEM OF EXPORT-IMPORT GAP

BUFFALO—To close the gap between exports and imports, the U.S. may shrink its exports, continue giving away an excess of exports or enlarge its imports, Harry A. Bullis, chairman of the board, General Mills, Inc., said April 24.

Mr. Bullis, in a statement to the press issued in connection with a General Mills board meeting, said he feels these are the three choices the U.S. has in meeting the problem of greater exports than imports.

However, he said, a reduction of exports may cause unemployment in export lines, and a huge burden is put on the taxpayer if the U.S. continues to give away "the $5 billion excess of exports."

The third choice, enlarging imports, would help to sustain exports, export markets and employment in the industries manufacturing for export, he continued.

"At the same time," he said, "the fact that we accept large imports to sustain these jobs is not necessarily detrimental. We should show good selling resourcefulness in disposing of larger volumes of imports."

Mr. Bullis pointed out that U.S. exports are now running at about $13.5 billion, compared with imports of about $7 billion.

He also pointed out that agriculture has substantially recovered in Europe, forcing the U.S. to face new problems of adjustment because of the reduced foreign need for U.S. food.

"Fortunately," he said, "population is increasing rapidly. Many of the births which occurred in the 1940's represent consumers soon coming to their years of maximum consumption. This should mitigate to some extent the coming difficult problem of food surpluses."

Mr. Bullis also told the press that the 300-million-sack drop in U.S. flour mill output from the level of three years ago occurred in exports.

* * *

GMI to Pay $.84375

BUFFALO—The board of directors of General Mills, Inc., has declared a quarterly dividend of $.84375 a share on General Mills 3¾% cumulative convertible preferred stock, payable June 1 to stockholders of record May 10. This is the 19th consecutive quarterly dividend on General Mills 3¾% preferred stock.

GREAT LAKES SHIPPING SEASON OFFICIALLY OPEN

SAULT STE. MARIE, MICH.—The 1950 Great Lakes shipping season opened officially April 23 at 8:30 a.m., when the freighter Algoven entered the third lock here.

Heavy ice floes and slush in the St. Mary's River delayed the coal freighter.

R. W. SELMAN RESIGNS; DR. B. G. CARSON HEADS PATTERSON RESEARCH

KANSAS CITY—Announcement of the resignation of Roland W. Selman as vice president in charge of research, laboratory control, and service of the C. J. Patterson Co., Kansas City, and the appointment of Dr. B. G. Carson as director of research in charge of scientific control work, exploratory baking and research was made last week by C. J. Patterson, president of the company. At the same time, it was announced that Charles Budde, a graduate in agricultural chemistry from Illinois State College with much baking industry experience, will manage production service for the C. J. Patterson Co. Mr. Selman's resignation was effective April 15. He had been associated with Mr. Patterson since 1944. Previously he was an analytical chemist for the Campbell-Taggart Research Corp. He graduated from the University of Chattanooga with the Bachelor of Science Degree in 1938, having worked in the Colonial Baking Co., Chattanooga, while attending that school. He holds a number of patents in the field of food processing. Mr. Selman has not disclosed his future plans.

Dr. Carson, who joined the C. J. Patterson Co. in 1948, has been engaged in working on the solution of the problems in the processing of baked goods. Now 50, he received the degree of Doctor of Philosophy in chemistry from the University of North Carolina in 1927. A native of North Carolina, he spent more than 11 years with the DuPont organization research laboratories. Mr. Carson holds five patents, one of which is applicable to food.

Mr. Budde, who will manage production service, has been associated for two years with the bakery service staff. Besides his studies in agricultural chemistry at Illinois State College, he has had several years of actual bake shop experience, two years in the C. J. Patterson laboratories in Kansas City.

Mr. Patterson also announced that Wayne Kistler will continue in full charge of sales of "Sta-Soft," "Mixatrons," "Unimalt," and other products of the company. Some important products are now in the last stages of development, he added.

Subsidy Rates Under Wheat Agreement

(In cents per bushel)

	East Coast	West Coast	Gulf*	Gulf†	Gulf‡
April 15—					
April	38	33	43	44	43
May	40	35	43	44	43
June	43	38	43	43	39
July	43	38	43	43	39
April 18—					
April	40	35	43	44	43
May	40	35	43	44	43
June	40	35	43	43	39
July	43	38	43	43	39
April 20—					
April	40	35**	43	44	43
May	40	35**	43	44	43
June	40	35**	43	43	39
July	43	38	43	43	39
April 21—					
April	40	35**	43	43	43
May	40	35**	43	43	43
June	43	35**	43	43	40
July	43	38	43	43	40
April 24—					
April	43	35**	43	43	43
May	43	35**	43	43	43
June	43	35**	43	43	43
July	43	43	43	44	43

*Gulf to all of Europe, Mediterranean, Middle East, all of Africa and adjacent islands.

†Gulf to Far East and adjacent areas.

‡Gulf to Latin America, West Indies and Mexico.

**Does not apply to 1950 crop wheat to be exported from California ports.

AT HALF CENTURY MARK

Millers National Federation Reviews Its Own and the Industry's Progress

ORGANIZATION of the Millers National Federation was perfected March 25, 1902, at a meeting in Chicago attended by millers representing 23 state and sectional associations. The new organization supplanted an older one, the Millers National Assn., formed in 1874.

The organization meeting had been preceded by a preliminary conference held in Chicago Feb. 12, 1902, with the following delegates in attendance: Bernard A. Eckhart, representing Chicago millers; John Heywood and Seymour Carter, Millers Club, Minneapolis; A. J. Meek and J. L. Grigg, Southern Illinois State Millers Assn.; Hosea B. Sparks and Charles H. Seybt, Illinois State Millers Assn.; A. R. James and Charles B. Cole, Millers National Assn.; Herbert Hackney and George M. Randall, Kansas Millers State Assn.; William C. Ellis and Charles T. Neale, St. Louis Millers Club; William N. Rowe and G. F. Allmendinger, Michigan State Millers Assn.; L. M. Miller and R. E. Kidder, Kansas City Millers Club; Henry Lassen and George Sohlberg, Oklahoma Millers Assn.; Edward P. Bronson and J. B. Little, millers of Tennessee and Georgia; Joseph LeCompte and John I. Logan, Kentucky Millers Assn.; L. S. Meyer and J. F. Dunwoody, Southwestern Missouri Millers Assn.; Alphonse Mennel and C. L. Cutter, Toledo Millers Club; Edgar H. Evans and Edward P. Bronson, Winter Wheat Millers League; Asher Miner, Pennsylvania State Millers Assn., and Walter Stern, Milwaukee Millers Assn.

Bernard A. Eckhart, Chairman

Mr. Eckhart was made permanent chairman, succeeding the temporary chairman, Hosea B. Sparks. C. V. Topping served as secretary.

Charles B. Cole, speaking in behalf of the Millers National Assn., said that it had not continued in effective service because of lack of support. He promised its cordial cooperation to the new organization and its good-will was pledged. A. R. James, the other delegate from the association, and J. E. Howard, William N. Rowe, J. L. Grigg and A. J. Meek, directors, endorsed Mr. Cole's statement.

A committee comprising Messrs. Eckhart, Ellis, Carter, Miner, Evans, Mennel and Rowe devised a plan for permanent organization, and this was adopted at the meeting on March 25, when 23 state and sectional associations were present.

The First Officers

The officers chosen at this meeting or subsequently appointed were as follows: Bernard A. Eckhart, Chicago, president; H. L. Little, Minneapolis, first vice president; E. O. Stanard, St. Louis, second vice president; William C. Ellis, St. Louis, treasurer; H. S. Kennedy, Chicago, secretary; Herbert Bradley, New York City, traffic manager. To serve with Mr. Eckhart on the board of directors, the following were named: H. L. Little, Minneapolis; E. O. Stanard, St. Louis; William C. Ellis, St. Louis; Edgar H. Evans, Indianapolis; Charles C. Bovey, Minneapolis; William N. Anderson, Milwaukee; Herbert Hackney, Topeka, Kansas; J. N. Rayzor, Denton, Texas; William N. Rowe, Grand Rapids, Mich.; C. L. Cutter, Toledo; Asher Miner, Wilkesbarre, Pa.; M. H. Davis, Shelby, Ohio; C. T. Ballard, Louisville, Ky.; C. E. Angle, Rochester, N.Y.; E. P. Bronson, Nashville, Tenn.; Seymour Carter, Hastings, Minn.

Mr. Kennedy set up an office at 612 Royal Insurance Bldg., in Chicago. Twenty-six millers' organizations were enrolled as members, representing about a thousand individual millers.

Thus was born the Millers National Federation, which adopted the motto, "Not for Self But for All."

The Federation's Purposes

Purposes of the federation, as set forth in the articles of incorporation, are as follows:

(1) To promote the welfare of the wheat flour milling industry of the United States.

(2) To provide a means of contact with appropriate federal and state agencies.

(3) To promote good relations with the general public and an understanding by the public of the economic functions performed by the milling industry.

(4) To perform a general trade service of education among the millers of the United States by the dissemination of statistical and economic information.

(5) To conduct educational and promotional activities among consumers for the purpose of obtaining increased acceptance of mill products.

(6) To improve the methods and practices of the industry in the manufacture and distribution of its products.

(7) To establish appropriate relationships with other agencies and associations.

(8) To inculcate and promote a spirit of public service and responsibility among the members of the industry.

From 1902 until 1924, the federation membership continued to consist of state and sectional associations. In 1924 the setup was changed to a direct membership organization of individual companies, the system which has prevailed up to the present time.

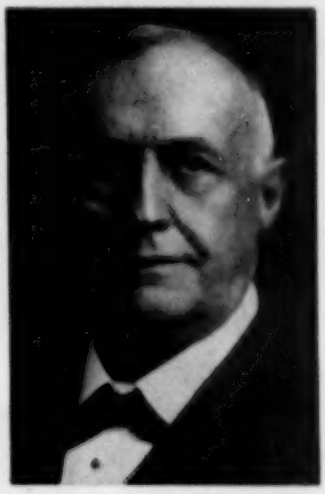
The Executive Roster

Leadership of the federation has been in distinguished hands. The list of top executives (presidents, except as otherwise noted) contains these names together with the years of service in office:

Bernard A. Eckhart, B. A. Eckhart Milling Co., Chicago, Ill., 1902-04; Charles Espenschied, Gardner Mills, Hastings, Minn., 1904-06; John W. Burk, Ansted & Burk Co., Springfield, Ohio, 1906-08; William E. Castle, Ballard & Ballard Co., Inc., Louisville, Ky., 1908-10; Dwight M. Baldwin, Jr., Baldwin Flour Mills Co., Minneapolis, Minn., 1910-11; Hosea B. Sparks, Sparks Milling Co., Alton, Ill., 1911-12; Andrew J. Hunt, New Era Milling Co., Arkansas City, Kansas, 1912-14; Mark N. Mennel, Mennel Milling Co., Toledo, Ohio,

THE FEDERATION'S EXECUTIVE LEADERSHIP

Bernard A. Eckhart, B. A. Eckhart Milling Co., President, 1901-04



Charles Espenschied, Gardner Mills, President, 1904-06

John W. Burk, Ansted & Burk Co., President, 1906-08

Hosea B. Sparks, Sparks Milling Co., President, 1911-12

Dwight M. Baldwin, Jr., Baldwin Flour Mills Co., President, 1910-11

William E. Castle, Ballard & Ballard Co., Inc., President, 1908-10

Samuel Plant, George P. Plant Milling Co., President, 1916-18

Mark N. Monnel, Monnel Milling Co., President, 1914-16

Andrew J. Hunt, New Era Milling Co., President, 1913-14

Fred J. Lingham, Federal Mill, Inc., President, 1918, 1923-24

Charles L. Roos, Hunter Milling Co., President, 1922-24

A. L. Goetzman, Listman Mills Co., President, 1920-22

E. M. Kelly, Liberty Mills, President, 1918-20

Tipton S. Blish, Blish Milling Co., Chairman, 1924-25

Benjamin W. Marr, Gwinn Milling Co., Chairman, 1925-27

Sydney Anderson, General Mills, Inc., President, 1924-30

Henry L. Beecher, Eagle Roller Mill Co., Chairman, 1927-29

Carl H. Warkentin, Midland Flour Milling Co., Chairman, 1929-31

1914-16; Samuel Plant, George P. Plant Milling Co., St. Louis, Mo., 1916-18; Fred J. Lingham, Federal Mill, Inc., Lockport, N.Y., April-July, 1918 (resigned to become chief of the Flour Milling Division of the U.S. Food Administration 1917-18); E. M. Kelly, Liberty Mills, Nashville, Tenn., 1918-20; A. L. Goetzmann, Listman Mills Co., Minneapolis, Minn., 1920-22; Charles L. Roos, Hunter Milling Co., Wellington, Kansas, 1922-24.

In 1924, the executive setup was changed, Sydney Anderson, General Mills, Inc., Minneapolis, becoming president on a full-time basis, and the following successively holding the office of chairman of the board of directors: Tipton S. Blish, Blish Milling Co., Seymour, Ind., 1924-25; Benjamin W. Marr, Gwinn Milling Co., Columbus, Ohio, 1925-27; Henry L. Beecher, Eagle Roller Mill Co., New Ulm, Minn., 1927-29; Carl B. Warkentin, Midland Flour Milling Co., Kansas City, Mo., 1929-31; Edgar H. Evans, Acme-Evans Co., Indianapolis, Ind., 1931-32; Frank Hutchinson, Lawrenceburg Roller Mills Co., Lawrenceburg, Ind., 1932-33.

In 1932, the office of president was

Edgar H. Evans, Acme-Evans Co. (George T. Evans & Son), Chairman, 1931-32

Frank Hutchinson, Lawrenceburg Roller Mill Co., President, 1930-33

Jess B. Smith, Shellabarger Mill, President, 1934-37

Frank J. Allen, Bay State Milling Co., Chairman, 1935-37

O. D. Fisher, Fisher Flouring Mills Co., President, 1937-38

Fred Borries, Ballard & Ballard Co., Inc., President, 1938-40

R. Ward Magill, Kansas Milling Co., President, 1940-41

Willis C. Helm, Russell-Miller Milling Co., President, 1941-44

Carlton D. McKenzie, McKenzie Milling Co., President, 1944-46

W. P. Bomar, Bewley Mills, Inc., President, 1946-49

John L. Locke, Fisher Flouring Mills Co., President, 1949-50

Howard W. Files, Pillsbury Mills, Inc., President-elect, 1950

re-established to supplant the chairmanship of the board, and Fred J. Lingham, Federal Mill, Inc., Lockport, N.Y., became the incumbent. He was succeeded by Jess B. Smith, Associated Millers of Kansas Wheat (Shellabarger Mills.), Salina, Kansas, in 1934. With the inauguration of a campaign to increase flour consumption, sponsored by the federation, and the creation of the Wheat Flour Institute, Mr. Smith served as full-time president from 1934 to 1937, with Frank J. Allen, Bay State Milling Co., Winona, Minn., as chairman of the board.

The title of president was added to that of chairman of the board in 1937, when O. D. Fisher, Fisher Flouring Mills Co., Seattle, Wash., was elected to the office. He was succeeded in 1938 by Fred Borries, Ballard & Ballard Co., Inc., Louisville, Ky. R. Ward Magill, Kansas Milling Co., Wichita, Kansas, was chosen in 1940 to succeed Mr. Borries. Mr. Magill was re-elected in 1941; Willis C. Helm, Russell-Miller Milling Co., Minneapolis, Minn., was president in 1942 and 1943; Carlton D. McKenzie, McKenzie Milling Co., Quincy, Mich., in 1944-46; W. P. Bomar, Bewley

Include in each car . . .

EAGLE RY-BATCH, Light or
EAGLE RY-BATCH, Dark and
EAGLE RY-BATCH, Pumpernickel

Perfect Blends, Thoroughly Mixed, of the best Types of Spring Wheat Clears and Rye Flours. Guarantee High and Uniform Quality and Uniform Baking Results.

Ship with . . .

DANIEL WEBSTER
and
GOLD COIN
Hard Spring Wheat Patents

EAGLE ROLLER MILL CO.
NEW ULM, MINNESOTA
Dependable Since 1856

ROBIN'S BEST FLOUR
The ROBINSON MILLING COMPANY
SALINA, KANSAS

"ROCK RIVER" RYE "OLD TIMES" BUCKWHEAT
"BLODGETT'S" RYE
All Grades—From Darkest Dark to the Whitest White —Specially Milled by the Blodgett Family—Since 1848
FRANK H. BLODGETT, Inc., Janesville, Wisconsin

SIMONDS-SHIELDS-THEIS GRAIN CO. GRAIN MERCHANTS
Storage Capacity 1,000,000 Bushels Kansas City, Mo.

Mills, Inc., Fort Worth, Texas, in 1946-48; John L. Locke, Fisher Flouring Mills Co., Seattle, Wash., in 1948-50. The 1950 president-elect is Howard W. Files, Pillsbury Mills, Inc., Minneapolis, Minn.

In 1929, when Mr. Anderson resigned the presidency, George Livingston was named executive vice president, in which capacity he continued to serve until his resignation in 1939.

The first annual convention of the federation was held June 3-5, 1903, in in Detroit, Mich., with an attendance of about 400.

The Wheat Flour Institute

To facilitate the federation's educational and promotional work, the Wheat Flour Institute was formed in 1935. Its activities include work with elementary teachers, doctors, public health groups, nutritionists, home economists, the press, radio and various other groups and individuals concerned with the use of flour and baked products and with their food value.

An Era of Achievement

Since its span of life has covered virtually half a century of milling the federation this year is reviewing its own achievements at the same time that it celebrates the achievements of the industry. This theme will highlight the annual meeting in Chicago, May 15-17.

GEORGE T. CARLIN CITES OPPORTUNITIES IN CAKE

OMAHA—The cake business is "almost an unexplored field in the U.S. and it offers exceptional opportunities to bakers," according to George T. Carlin, Swift & Co., Chicago. He spoke here at the April 1 meeting of the Nebraska-Iowa Bakery Production Club and the Nebraska section of the American Association of Cereal Chemists. He described the improvement in commercial cakes as due to the development of special cake flours, hydrogenated and high ratio shortenings, etc.

"Cake mix manufacturers now are conducting considerable research on ingredients," he said. "They have improved the quality of the products considerably during recent years. They have done so to regain and hold the business which they lost since 1940. Bakers too must revise their policies and methods."

In the other section of the meeting, Ben D. Hites, chairman of the cereal chemist group, presented J. M. Doty, Doty Technical Laboratories, Kansas City, Mo., who spoke on "Flour Maturing or Oxidizing Agents that Bakers Should Know About."

He described the effects of yeast foods such as potassium bromate, potassium iodate, calcium peroxide, ammonium persulfate and potassium persulfate when used with flours given the present day treatment with chlorine dioxide or chlorine.

"Production men," Mr. Doty said, "should pay close attention to the oxidation requirement of their flour. They should experiment with the various available yeast foods in order to determine in their own minds the effect of these agents in the doughs in order to make adjustments with assurance."

Preceding the meeting, an election of officers was held by the cereal chemists. They elected Arlee Andre, Nebraska Consolidated Mills, Omaha, chairman of the Nebraska section. Robert Gates of the agricultural chemistry department at the University of Nebraska, was elected vice chairman and Edgar Myers, Nebraska Consolidated Mills, Grand Island, was reelected secretary-treasurer. Mr. Andre succeeds Mr. Hites.

25 INITIATED INTO GMI 25-YEAR ORGANIZATION

MINNEAPOLIS—The 25-year Club of General Mills, Inc., in Minneapolis initiated 25 new members at its annual meeting at the Dyckman Hotel April 18.

They are James Cripps, Lloyd Peabody, Don A. Stevens, George S. Barnes, E. L. Schujahn, W. B. Dohoney, Leota Clark, Mrs. M. C. Husted, Nels M. Birkeland, John E. Johnson, A. D. Palmer, August L. Trulen, Loren A. Aamodt, Carl A. Nelson, Lottie E. Dahl, Roland H. Becker, Michael Martinka, George L. Zoerb, Charlotte Jones, Ray B. Robinson,

ARNOLD
...of...
STERLING
Mills and Sells
"Thoro-Bread"
(Diastatically Balanced)
A very fine, strong, altogether uniform and dependable flour
ARNOLD MILLING CO.
STERLING, KANSAS

"Hunter's CREAM"
The Oldest Flour Brand in Kansas
that for more than seventy years has stood at the very top of the fine quality list.
The Hunter Milling Co.
Wellington, Kansas

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ALWAYS SOMETHING NEW!
PERCY KENT BAGS

KING MIDAS FLOUR
Pv
KING MIDAS FLOUR MILLS
Minneapolis, U. S. A.

DOBRY'S BEST
and
BEST OF THE WEST
DOBRY FLOUR MILLS, Inc.
YUKON, OKLAHOMA

An EXTRA HOUR OF DOUGH STABILITY with WISDOM HIGH GLUTEN FLOUR

A new development which greatly extends fermentation tolerance. Provides more time for "cutting over" or giving dough extra punches. If you want a flour which will stand abuse, write or wire

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Designers and Builders for the Grain Processing Industries

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Over 60 Years Experience Making Quality Products

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HIGH GLUTEN FLOURS
For Bakers
The Morrison Milling Co.
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Emphatically Independent

We specialize in designing and engraving for Millers and the Grain Trade
Holland Engraving Co.
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80 Years of Reliability
PILLSBURY'S BAKERY FLOURS

ALL YOUR FLOUR NEEDS from a Single Source
SPRING WHEAT • KANSAS WHEAT • SOFT WHEAT
"The Beardstown Mills"

Susan Q. McCashin, Harry C. Soltz, Kenneth L. Fraen, Glen M. Harold and F. M. Rea.

Officers elected at the meeting for 1950-51 are C. V. Nelson, president; Daniel J. Guinney, vice president; Mildred Pickett, secretary, and C. W. Carlson, treasurer.

The Minneapolis chapter's membership now numbers 320. There are 1,200 25-year Club members throughout the nationwide General Mills organization, a company announcement said.

—BREAD IS THE STAFF OF LIFE—

W. M. SKIDMORE TO S.E. FOR KANSAS MILLING CO.

WICHITA, KANSAS—W. M. Skidmore has been appointed southeastern sales manager for the Kansas Milling Co., Wichita. It was announced last week. Mr. Skidmore will take over his new position May 1.

For the past several years Mr. Skidmore has been general sales manager for the Yukon (Okla.) Mill & Grain Co. and previously was associated with Igleheart Bros., Inc., in the Southeast.

Mr. Skidmore will make his headquarters in Atlanta. He will move his family there after the current school term.

—BREAD IS THE STAFF OF LIFE—

R. B. HAGER HEADS SALES OF YUKON MILL COMPANY

YUKON, OKLA.—R. B. Hager has been appointed general sales manager of the Yukon (Okla.) Mill & Grain Co., R. B. Kroutil, vice president of the milling company, announced last week. Mr. Hager succeeds William M. Skidmore who resigned recently. Mr. Hager has served as assistant general sales manager of the Yukon company for some time and previously was prominent in the grocery business in the South.

—BREAD IS THE STAFF OF LIFE—

MINNEAPOLIS BAKERS SEE CAKE DECORATING

MINNEAPOLIS—A demonstration of cake decorating by Mrs. Evelyn Englund, Krause's Inc., was the feature of the April 18 meeting of the Associated Bakers of Minneapolis.

Ove A. Mathisrud, Mathisrud Bake Shop, president, reported on operating cost and profit figures for 10 retail bakeries and suggested using the figures as a comparison. Clifford Anderson, Christensen's Bakery, chairman of the sanitation committee of the association, discussed the proposed new sanitation code being prepared by the Minneapolis City Council. The Minneapolis bakers' group has endorsed the code as it affects the baking industry.

—BREAD IS THE STAFF OF LIFE—

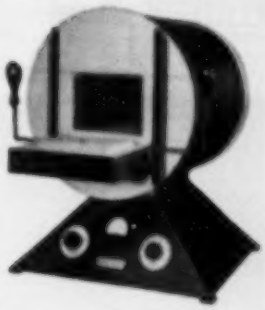
WAGNER MILLS BEGINS WORK ON ADDITION

SCHUYLER, NEB.—The Wagner Mills, Inc., here has begun construction on an 800,000 bu. concrete grain storage elevator which will cost $300,000. The new structure, which is to be finished by July 1, will give the firm more than 1 million bushels of storage in Schuyler alone.

Wagner Mills, Inc., with its elevators at Clarkson, Mead, and Edholm, will have more than 1,500,000 bu. storage space when the new project is completed.

A 2,500-bu. hopper scale and all grain-cleaning machinery will be installed in the building project. Wagner Mills, Inc., started here in 1936. John Wagner is president of the firm, and Kermit Wagner is vice president.

Get Better Control of Your Milling Process by using this new HEVI DUTY MUFFLE FURNACE for Ash Determination
TEMPERATURES TO 1850°F.



A specially designed Hevi Duty tap changing transformer located in the pyramidal base of the furnace allows for 36 steps of precise temperature control.

Four standard sizes are available.

- Less Heat Loss
- No Rheostats
- More uniform temperatures
- Pyrometer, tap switches and transformer in one easily serviced unit
- Reversible "multiple unit" heating elements

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HEVI DUTY ELECTRIC COMPANY
LABORATORY FURNACES MULTIPLE UNIT ELECTRIC EXCLUSIVELY
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All Grades
RYE FLOUR
1000 cwts. Flour—250 cwts. Meal
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WATERTOWN, WISCONSIN

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MILLERS OF
WHEAT and RYE
FAMILY FLOUR BAKERY FLOUR CRACKER FLOUR

GROCERY PRODUCTS NEWS

OCCIDENT FAMILY PARTY SHOW—Stewart MacPherson (right), Minneapolis (WCCO) radio personality, makes a final check in the script for a broadcast of the Occident Family Party Show with Walter S. Coleman, sales manager, midwest division, Russell-Miller Milling Co., Minneapolis, while Art Lund, radio director of Campbell-Mithun, Inc., advertising agency, looks on. Occident family flour and mixes are advertised during the half-hour quiz program in which members of the audience participate. Mr. MacPherson, Canadian-born master of ceremonies, joined WCCO last fall after many years with the British Broadcasting Co. in London.

GMA Cites Values of "Price Spread" in Food Distribution

NEW YORK—Food price "spread" exists because the series of processes and services for which it pays are essential and valuable to both farmers and consumers, it is stated in a report by Grocery Manufacturers of America, Inc.

In a recent issue of its news-letter, "A Line On the Life Line," GMA analyzes the spread between what farmers get for their crops and what consumers pay for processed foods.

The report says that spread, instead of being the "necessary evil" it is sometimes made out to be, is actually "a payment for added values, values which are received by both farmers and consumers from the monies designated as spread or marketing cost."

These values include expanded markets for farm crops, increased income for farmers, stable employment for millions of workers, more free time for the homemaker because of the culinary services performed for her by the manufacturer and greater value for less money to the purchasers of food products.

"Spread is an integral part of the growth of the American economy with its great degree of specialization, its greater service to meet consumer needs and wants, and, importantly, its high standard of living," it is stated.

The news-letter also shows that efficiencies in production and distribution perfected in recent years have helped to keep marketing expenses down despite increased costs and inflated currency. This is supported with U.S. Department of Agriculture figures for its "market basket" of farm food products which move through the marketing system.

"Prior to 1947, retail food prices reached their highest level in the year 1920," it is reported. "For that year the retail cost of the market basket was $567 and the marketing expense or spread was 57% or $323. The year 1948 set a new record. The cost of the market basket reached an all-time peak of $713 in July and averaged $690 for the year including a spread of $339. It is interesting to note that the marketing expense of the 1948 market basket was only $16, approximately 5%, higher than it was in 1920."

The report also shows that efficiencies effected by the industry "are reflected in part by a greater volume of food per man hour being processed and distributed today." It reports that between 1939 and 1949 hourly earnings of food marketing employees increased more than 120% but that labor costs per unit increased only 106% and marketing costs over this period rose only 73%.

—BREAD IN THE STAFF OF LIFE—

RETAILERS TO HEAR PANEL DISCUSSIONS

CHICAGO—The retail food store and its problems in a competitive era will receive the attention of food industry authorities and successful store operators at the 51st annual convention of the National Association of Retail Grocers. The five-day meeting at the Navy Pier in Chicago will open June 4.

Panel discussions on various phases of retail food distribution will be held daily, with nationally known speakers appearing on each program. Among subjects to be discussed will be food store expansion costs, operating costs and advertising techniques. Manufacturers, wholesalers, retailers and others associated with the industry will take part.

More than 10,000 retailers are expected to attend the convention.

—BREAD IN THE STAFF OF LIFE—

Food Salesmen Take Grocers' Inventories

Food manufacturers' representatives in the San Diego area report that they make good use of their spare time in a way which helps their retail grocer customers and earns extra money for themselves.

Operating through the Merchants Inventory Service, the salesmen go into food stores on their own time and take complete inventories on an independent contractor basis, says Don L. Webster, president of the organization. Mr. Webster, who is territorial representative of the Jacques Mfg. Co., maker of K C baking powder, said the service was organized by a group of representatives who feel that the more they can help the merchant, the more of their products he will buy and display properly.

He said the service was a success from the start because retailers had needed and wanted inventories taken by impartial parties who would do accurate, confidential work at a reasonable cost.

Members do the regular inventory work in the evening or on weekends and holidays, Mr. Webster said, and the extending and figuring are done by Mrs. Webster and various wholesale grocery employees on an independent contractor basis.

Selling Baked Goods

Store Decisions Found Important

Most purchases of baked goods in the super market involve some type of buying decision after the customer is in the store, according to a survey by E. I. du Pont de Nemours & Co., Wilmington, Del.

In a market study of baked goods buying habits, Du Pont classified purchases as follows: Planned—a specific item such as "a loaf of white bread" of a certain type or brand; generally planned—no special kind or brand item in mind, such as "a loaf of some kind of bread"; substitute—a change from a planned item; unplanned (or impulse)—purchases of shoppers who had no intention of buying baked goods when they entered the store.

By actual store count, Du Pont said, 69.8% of all baked goods sales involved store decisions. This figure includes general plan, substitute and unplanned purchases.

Such findings, Du Pont says, show that point-of-sale—the store itself—is one of the most important places to influence shoppers' decisions in favor of bakery products and certain brands or types. And to influence store decisions, the company says, markets should be shown the importance of displays and packages that sell the products.

Here are survey results for various baked goods items, showing the extent store decisions resulted in purchases:

White bread: 62.3% of the white bread purchased resulted from some type of store decision — including 14.9% unplanned, 45.5% generally planned and 1.9% substitute. Planned purchases of a certain type or brand amounted to 37.7%.

Variety breads: Store decisions accounted for 69% of the purchases—

Consumers Are Brand-Minded

• • • • • •

Importance of Brands in Selling Mixes Shown

NEW YORK—The importance of brand names in sales of baking mixes was cited recently in a report presented by Howard Trumbull, president of National Family Opinion, Inc., Toledo, at the Brand Names Day conference in New York.

Mr. Trumbull, reporting on a survey of family buying habits, presented figures on brand purchases of many different types of items, including baking mixes and other food products. He told the conference sponsored by Brand Names Foundation, Inc., that 77% of the survey respondents had makers' brands in mind when buying baking mixes.

Only 20%, he said, reported that they do not seek any particular brand of mix. Twenty-seven percent, it was found, always buy the same brand—26% taking a maker's brand and 1% other brands. Fifty-three percent, the survey showed, buy any one of several brands—51% buying a maker's brand and 2% other brands.

A similar pattern was revealed in purchases of cereals, 70% of the total being makers' brand-minded. Twenty-three percent of the respondents reported they do not seek any particular brand of cereal. Another 23%, it was found, always buy the same brand—22% purchasing a maker's brand and 1% other brands. Fifty-four percent said they buy any one of several brands—48% taking a maker's brand of cereal and 6% other brands.

including 34% unplanned, 31.3% generally planned and 3.7% substitute.

Rolls: 85% of roll purchases were selections after entering the store. This included 53.6% unplanned, 25% generally planned and 6.4% substitute.

Sweet rolls and coffee cake: Store decisions accounted for 80.2% of the purchases — including 67.6% unplanned and 21.6% generally planned.

Cake: 91% of the purchases involved some type of store decision—68.4% unplanned, 20.3% generally planned and 2.3% substitute.

—GRAIN IN THE STAFF OF LIFE—

SAFEWAY SALES DOWN

OAKLAND, CAL.—Net sales of $1,095,063,621 for 1949 have been reported by Safeway Stores, Inc., and its consolidated subsidiaries. This represents a drop of about 7% from the 1948 level. Net income, however, showed an increase, rising from $9,978,231 in 1948 to $14,309,124.

—GRAIN IN THE STAFF OF LIFE—

FURTHER DISCUSSION OF FOOD TRADE RULES SET

WASHINGTON — Representatives of national food and grocery associations plan to meet again next month with Federal Trade Commission officials for another discussion of proposed trade practice rules for the grocery industry.

Following a recent meeting, the group tentatively set May 9 as the date for a third session. Members expressed hope that by that time Congress will have acted on a bill proposing amendment of the Robinson-Patman Act, thus permitting practical discussion of rules based on the act.

One of the major points of discussion at the recent meeting of the Grocery Trade Practice Conference Committee concerned proposed rules referring to price discrimination under the Robinson-Patman Act. Further discussion was postponed pending action on the congressional proposal.

Another major issue raised was on the advisability of including Group II rules in any trade practice rules. It was pointed out that compliance with Group II rules is purely voluntary, and a majority of the committee members present was reported opposed to such rules.

NEW CONTAINER—The new bag for prepackaging baked goods, shown above, sold under the trade name "Peek" (pronounced "Peek"), has been introduced by the Union Bag & Paper Corp., New York. The white kraft paper bag features a window of transparent film described by company officials as "a miniature showcase enabling customers to see what they buy."

The Flour Distributor's Viewpoint . . . by Wayne G. Martin, Jr.

CLOSER accord between flour millers and wholesale distributors is essential and is one of the best means of increasing the sale of family flour. Without this cooperation there would be little opportunity to help retail grocers, who are the final link between millers and consumers.

Too many distributors pay more attention to prices at which they buy flour than they do to ways in which it may be moved into the hands of consumers. Merely buying flour at a cheap price does not accomplish the final purpose of all distributors—to get it to consumers.

If both millers and wholesale grocers would recognize this and do everything possible to help retailers improve their merchandising activities, many sales problems would be automatically solved. Progressive millers and wholesale grocers are already doing this, but there is still room for improvement.

EMPHASIS IN SELLING — The recent annual report to stockholders of the General Foods Corp. lays emphasis upon the fact that competition in the food industry is going to be stronger this year than in 1949. Consequently, the company is planning to put greater stress than ever before upon its selling activities. That, of course, is the only possible way of meeting increased competition.

That is as true of independent wholesale grocers as it is of a large firm like General Foods. Competition is a matter of comparison, and what might seem trivial to a large corporation may be serious to a smaller organization.

Phases of a distributing business other than selling must also be watched closely. All operating expenses must be held at an efficient basis so that prices will be kept in line. Every possible service must be given to retailers to help them in their competitive position. But in the final analysis, the emphasis must be placed on selling, which is the only way to move merchandise.

FOOD SEIZURES GREATER—According to a report recently made by the Food and Drug Administration, food seizures during the fiscal year 1949 were more than 47% greater than in preceding year. Heaviest seizures were in warehouses and manufacturing plants, immediately following an amendment to the law giving FDA greater authority over all types of stored food which had entered into interstate shipment.

It is interesting to note that seizures of cereals and grain products jumped materially. There is every reason to believe that the administration will continue this campaign as vigorously. And, although it reports that warehouse conditions have improved, reasons for complaint will still be found.

With the approach of warm weather, all flour distributors who operate their own warehouses should take every precaution to see that warehouses are kept scrupulously clean. They should also watch all flour coming into their warehouses to see that it is not infested.

ROBINSON-PATMAN ACT — That food brokers are opposed to any move which would weaken the Robinson-Patman Act was clearly indicated at the recent convention of the National Food Brokers Assn. Members unanimously adopted a resolution stating that "any weakening of the Robinson-Patman Act would tend to throw the food industry back to the days of chaotic business conditions."

The sentiment was that the act should be strengthened, rather than weakened. The resolution further declared that the law "protects buyers and sellers generally," and also that "it is of great value to the nation's welfare." Most brokers attending the convention felt that the Robinson-Patman Act has eliminated many undesirable practices from the food industry and feared that these would return if the act were weakened in any way.

As all flour brokers should know, they come under provisions of the act just as do general food brokers. In recent years we have heard little comment among brokers about this legislation, but certainly they should remember that they are affected by it. In general, we believe the act has benefited the food distributing industry and helped eliminate trade abuses.

A LOGICAL REQUEST—There is a feeling among many food association executives that whatever surplus foods the government may distribute to the needy should go through regular food distribution channels. That is a logical request. If it were not complied with, considerable hardship among many independent food distributors would result.

This would be particularly true in low income areas, where presumably the greater part of the free food would be distributed. It is both wholesale and retail grocers in such sections of the country who can least afford to have any of their present business taken away from them.

There is, of course, no objection for provision being made for the needy, but it should be so handled that by helping one group another is not harmed. Too frequently the government has failed to recognize this fact in many of its operations.

KEEP ADEQUATE STOCKS—There are many reasons for keeping inventories of all foods, including flour, at reasonable levels. However, this can be carried to an extreme. If either wholesale or retail grocers suffer a loss in business because they do not have adequate stocks they are curtailing a potential profit.

This problem can best be solved by studying closely the movement of merchandise. For instance, if a wholesale distributor finds that he frequently is out of a certain brand of flour, he knows that he is buying it in too small quantities.

In Food Merchandising

Quality, Convenience Held More Important Than Price

Quality of products and convenience in shopping are more important than price in the demands of retail food store customers, according to C. C. Precure, president of the National Association of Retail Grocers.

Mr. Precure said recently that it has been found that the customer has three major requirements.

"Those three main requirements are quality, convenience and price," he said. "You will notice that price is third in place on that list . . . and that is where it is on the list of the customer's demands.

"She wants quality first of all. Then she wants a store which makes it as easy as possible for her to shop for her family's food needs. Finally, she is interested in price. She wants food priced reasonably in order to feed her family well on her food budget, although the past several years have shown high-quality, high-priced foods in great demand."

To meet these requirements, Mr. Precure said, retailers are spending millions of dollars to expand their stores, carry more varied stocks, add new equipment and make changes in arrangement of stores. They have had to institute new personnel training methods, new business systems, new merchandising methods and new department operations, he added.

To satisfy the demand for quality, the retailer has become a very selective buyer, Mr. Precure said, and he needs the cooperation of the entire food industry in insuring such quality. To meet the demand for convenience, he continued, retailers are swinging more to "one-stop" stores and they are keeping up with changes in food tastes and consumption. However, the most radical changes, he said, are in the physical aspects of stores, which are being modernized and improved through remodeling and installations of new equipment.

—GRAIN IN THE STAFF OF LIFE—

SUPER MARKET INSTITUTE CONVENTION PLANS SET

CHICAGO—Super market operators will converge on Chicago next month for the 13th annual Super Market Institute convention. The convention will be held May 14-18.

Emphasis, according to institute officials, will be on demonstrations and presentation of visual information through slides, graphs and pictures. Operators will also see hundreds of manufacturers' exhibits and will take part in various discussions.

James B. O'Neill, merchandise manager, Weibolt Stores, Inc., Chicago, will serve as program chairman. Claude W. Edwards, general manager, Alpha Beta Food Stores, Los Angeles, is institute president.

DENTAL CARIES OUTBREAK IN AUSTRALIA—In Western Australia lately, reports the Australasian Baker and Millers Journal, the dental profession has been having another go at flour millers over the alleged wickedness of white flour. The millers have vigorously replied, but the dentists persist in their demand that the populace be fed compulsorily upon whole meal. Here is the comment of our contemporary:

"The millers have quoted authorities to show that the statements made by the dentists about whole meal's constitution are proved—really proved—in a thoroughly scientific manner—to be wrong. For instance, the dentists' contention that there is less calcium, for tooth and bone building, in white bread than in whole meal is shown to be another ill-judged jump to unjustifiable conclusions, because it has been established (so undeniably established that the British government has compelled millers to add chalk to the much-publicized National long-extraction flour which is all the people of the U.K. are allowed to get these days) that the phytic acid in whole meal, not present in white flour, neutralizes all the calcium in the whole meal and a good deal of calcium taken into the body in other foods as well. Not knowing this, the dentists have actually built up an argument against their own contentions; for, if a good supply of calcium is required for healthy teeth, the fact is that the body gets more from white flour than whole meal—a good deal more.

"Moreover, the dentists' claim that white flour lacks vitamins has also been shown, on the authority of, among many others in the world, the Commonwealth Nutrition Committee and its chairman—Dr. F. W. Clements, who, now on loan to the United Nations nutritional organization at Geneva, enjoys world fame—to be fallacious.

"But do the dentists admit themselves mistaken, in the face of these facts? They do not. They wave such trifles aside as being of no account. It is the old, old story of the propagandist; he always ignores facts that confound his argument, and argues more than ever.

"But what we can't make out is why the dentists should be propagandists? Why should they be getting themselves embroiled in arguments about whole meal and white flour, with the modesty of an Irishman buying into a brawl, when they must, as dentists, know that advanced science does not admit that the real cause of dental caries has been discovered—that not even the latter-day fluorine theory is yet established as anything more than a pretty theory, though it looks a lot more tenable than wild imaginings about wheat husks and starch.

"And, by the way, how is the hapless human being to live at all if he does not eat starch or its derivative sugar? He cannot get carbohydrate in any other form but starch or sugar; yet the greater part of his diet must consist of carbohydrate, or his body just ceases to live.

"Perhaps, after all, the dentists have the answer to the problem of dental caries: No starch, no life; no life, no dental caries. Easy, isn't it?"

• • •

One of the problems confronting the management of Continental Baking Co. when its great merger of a quarter of a century ago had been completed was to prune off unprofitable operations and properties which seemed to hold little promise of profit. In the company's annual report for 1949 appears this highly interesting statement: "The management sold off its Canadian bakeries at a good price and used the money to improve its remaining properties. Then it sold off its flour milling properties. A flour milling company which had been acquired when Continental Baking Corp. was first put together and had been valued on the books at somewhere around $4,500,000, made no money and gave no prospect of doing so. It was ultimately sold at what was approximately 10% of its total cost." Continental thus was an early convert to the wisdom of separating flour milling and commercial baking operations, a policy which experience and logic have now made virtually universal.

• • •

.S .S .S THIS WEEK'S COVER—Cowman and prospector and all the other types of frontiersmen were bachelors of bread making under the open skies or under the shaggy rafters of log shanties remotely buried in the continent's great woods. The cover picture of this issue makes vivid and historical this necessity of the days when westward looking adventurers went far beyond the reach of even the pioneer settler's kitchen. The artist was Frederic Remington, the celebrated American painter, sculptor and illustrator. First published appearance of this picture occurred many years ago in one of the Holiday numbers of The Northwestern Miller.

A. J. Vander Voort, head of the baking school of Dunwoody Industrial Institute, thinks the plainsmen in Remington's striking scene were making corn bread, but it may just as likely have been pan bread made from wheat flour. Use of a frying pan was customary and convenient for it kept camp equipment at a minimum. Saleratus was the riser. Alaskan prospectors were more likely to go in for sour dough, so called because at each baking a piece was set aside for the next, by which time it was nicely fermented—no need for yeast.

It was poor health that introduced Remington to the Far West. He studied at Yale Art School and at the Art Students' League in New York City. Establishing himself on a remote ranch, he became an expert in the characterization of the North American Indian, the cowboy and the American soldier of the plains. He made pictures of the Geronimo war, the Yaqui war, the outbreak of the Sioux in 1890, and during the Spanish-American War he served with General Shafter as a war correspondent. Author as well as artist, he wrote several volumes of stories, including "Pony Tracks" (1895), "Crooked Trails" (1898), "Sundown Leflare" (1899), and "John Ermine of the Yellowstone" (1902). He died in 1909 near Ridgefield, Conn.

• • •

VOICE OF A POET STILLED—For many years verse, mostly original, has been wont to appear on this page—in fact, few issues of The Northwestern Miller in all its more than 75 years of existence have gone to press without a word jingle of some kind or other. Much of this verse has had subsequent publication in book form, and some of it has been adjudged worthy of the name of literature. The other day Margaret A. Bartlett asked permission to reprint from our pages several of the poems contributed by her over the past two decades. And now a copy of the collected verse has reached our desk. Unhappily, the jacket is bearer of the news that Mrs. Bartlett's book became a reality only upon the eve of her death. These are samples of what she wrote for The Northwestern Miller:

* *

THE SMELL OF MOTHER'S BREAD

I think that I shall never know
Aroma more entrancing
Than that which rose from Mother's bread
When I from school came dancing.

At morning when I left the house
The yeast was in a cup;
At noon a spongy pillow filled
Her mammoth bread-pan up.

But when my day at school was o'er
And I with happy feet
Raced homeward—oh, the smell I caught
A full block down the street.

I almost saw the pungent waves
That from the oven fled,
And hunger gnawed consumingly
As, deerlike, home I sped.

Oh, I've dined at many a laden board,
But no bread, far or wide,
Can smell like that my Mother made,
Or feel so good—inside.

* *

HER FIRST CAKE

Proudly she dons her apron,
Gaily she gets the eggs,
Carefully sifts the flour,
Restlessly shifts plump legs;

Breathlessly whirls the beater,
Fills up the sugar cup,
Spills a bit of the flavoring,
Beats the gold batter up;

Pours it with fingers shaking,
Smiles at me hovering near,
Shoots it in oven all heated—
"Call when it's done, Mother dear!"

* *

SCHOOL-DAYS

"What you got to eat, Mom?
Is there any cake?
Are there any cookies
Jim and I may take?"

Children by the thousand
Bursting in from school,
Send this call to Mother
As a general rule;

And mothers by the thousand
Smile, and nod their head,
"If you're really hungry, dear,
You'll enjoy plain bread!"

"My Uncle Henry," said Old Dad Fetchit, of the Fish River Roller Mills, "used to say that going to a meeting and passing resolutions was about as profitable as hiring a hill billy to root acorns for a timber hawg. But I say times has changed, and nowadays a man who can't attend a convention and soak up enough information to more'n pay his fare there and back wouldn't have sense enough to hold up a dish if it was rainin' greenbacks."

EDITORIAL

INDUSTRY'S SHARING OF IDEAS AND TECHNIQUES

THE half-century mark is an appropriate point at which to assess the accomplishments of a trade association which has behind it a half century of experience. This is certainly the case with the Millers National Federation, which made its bow to the world and to its industry on the very threshold of the 50-year period which will be under review at the federation's annual meeting.

Such an assessment at this time is supported by other circumstances. The first half of the Twentieth Century has been an era of great events and great changes in the industry, and it was in this period that the trade association found its greatest need and made its greatest development.

In 1900 comparatively few associations were in existence. Three of the oldest are the American Iron and Steel Institute, founded in 1855, the Writing Paper Manufacturers Assn., founded in 1861, and the American Institute of Laundering, founded in 1883. In 1900, with the automobile industry only a few years old, automobile manufacturers had already formed an association to meet the needs of their new and thriving industry. And it was in 1902 that the Millers National Federation came into being, replacing an older but then virtually defunct association, the Millers National Assn., which had been founded in 1874.

Thus the flour milling industry of today has behind it three quarters of a century of experience in self-regulation and promotion. Its trade association activities had their origin in recognition of the need for solving common problems arising outside the industry—at first mainly matters of transportation and marketing, but after the First World War the constantly increasing pressure of government controls. The early reluctance of millers to cooperate in dealing with the internal problems of the industry gradually succumbed as competition within the industry increased and the need for group action against outside forces grew. Codes of ethics were adopted and trade practices regularized, always within the limits imposed by anti-trust laws. Only once was the flour milling industry placed on the defensive by the government, this action being aimed at uniform package pricing differentials, a device which, in its operation, actually was so innocent and so beneficial that the wartime Office of Price Administration made the use of it mandatory.

During the first two decades of the century the association movement in this country grew steadily. It was the First World War, however, that provided the greatest impetus. In 1916 Bernard Baruch, as chairman of the War Industries Board, discovered that it was virtually impossible to mobilize a country for war when businessmen as individuals were all working out their own relationships with the government. He requested business to organize itself in logical industrial and trade groupings so that the government could work effectively through these groups. By 1919 over a thousand national and regional trade associations had been formed to serve the two million business firms operating in the U.S. at that time.

Between World War I and World War II, the nation experienced its greatest industrial growth. Trade associations kept pace with this growth. By 1941, when Pearl Harbor was attacked, there were 2,000 trade associations of national and regional scope and 10,000 with local interests. World War II required industrial mobilization on a scale far surpassing that of World War I, and trade associations helped the government to enlist the cooperation of businessmen and keep them clearly informed of the many phases of wartime activity. The Millers National Federation is accorded exceptional credit for its collaboration with government during this period and the years immediately following the cessation of hostilities.

Charles Sawyer, secretary of commerce, has paid high tribute to the American trade association. He calls it "one of the best means of encouraging close consultation and joint action of business and government."

"I know," says Mr. Sawyer, "that the dramatic results that have been achieved in war and peace through this cooperation are only the beginning. Our greatest achievements are still to be realized in the second half of the Twentieth Century."

But Mr. Sawyer, significantly, does not think of the trade association's value to the American economy solely in the light of its usefulness to government in policy and planning. He sees that its chief function is to carry on American traditions of vigorous competition—of individual effort within the framework of free enterprise. He says:

"It appears to me that American businessmen form trade associations primarily for the purpose of self-improvement. They want to know more about their own businesses by talking with others who are meeting the same problems and who have ideas that may be valuable. Foreign observers have noted with surprise that most American businessmen place very little emphasis upon 'trade secrets.' The American businessman characteristically talks with pride about the way he has solved his own problems and invites his fellow businessmen to try the same solution. This trait is one of the most important reasons for our tremendous advances. The popularity of the trade association is a result of this same strong tendency toward the fraternal sharing of techniques and ideas."

• • •

"A dollar seldom travels to Washington and comes back whole."—*Allan B. Kline, president of the American Farm Bureau Federation.*

• • •

TOOLS OF THE TRADE

AGAIN The Northwestern Miller Almanack, statistical and factual guide to the flour, grain, feed and baking industries, bows to the reader family of this journal. Annually for more than three decades it has made its appearance as a part of The Northwestern Miller's program of "extra-curricular" services to the trades with which this journal is associated. This year's Almanack is presented as Section II of the current issue of The Northwestern Miller (April 25, 1950). It is mailed in the same wrapper that brings to readers Section I of the Almanack Number, which has all the customary content of a weekly edition of The Northwestern Miller.

We like to think that all numbers of this journal deserve preservation for re-reading or consultation, but, setting modesty aside, we confess to no doubt whatsoever that this holds true of Section II of the Almanack Number, which is a reference work without competitor in the fields occupied by industries we endeavor to serve. The current Almanack appears in a new format calculated to increase its handiness for the user, and the scope of its content is materially broader than that of any of its predecessors.

Statistics are among the most important tools of any trade. They are vitally important, particularly in these times of change and stress, to the breadstuffs world. So is an encyclopedic knowledge of the rules and customs that govern trade. Confident, therefore, that it is what you need and ought to have, we give you again—The Almanack.

• • •

LETTING GOVERNMENT DO IT

***Government is like a fire. If it is kept within bounds and under the control of the people, then it contributes to the welfare of all. But, and that word is very big, if it gets out of its place, gets too big and out of control, it destroys the happiness and even the lives of the people.*—Exeter (N.H.) Newsletter.**

• • •

ONE of the most shocking disclosures we have seen of how big government operates on the rural scene in America is made in an article in Country Gentleman. There are some 30,000 counties in the U.S., and for his purpose the author of the article takes as a sample De Kalb County, Illinois. He finds that in this one county 178 men and women were working for the federal government last year, telling farmers what they should do, what they can do, and, in some instances, what they cannot do. These 178 persons put in part or full time and were paid from $8 day up to $5,350 a year. They were engaged in the various federal farm service programs operative in De Kalb County. Of this number 123 live in the county and 55 outside, but the 55 regularly visited the county in their round of duties. Jobholders in state, regional and national bureaus who influence but never see De Kalb County were not counted.

To make these helpers available to the 2,500 farmers of De Kalb County Uncle Sam spent $86,065.60. This does not include the cost of the 55 visitors. It took 65 De Kalb men and five girls a total of 500 days to sign up, check performance, figure up results, and pay out $35.01 apiece to farmers who cooperated in the government's PMA program. The Soil Conservation Service's bill was $14,040 for offering technical advice to 95 farmers—about $147.68 each. (One cooperator said he came in on the deal just to get a free soil map.)

There is gratuitous advice to farmers on crop rotation from at least three different government agencies, in some instances five, and yet more than 100 De Kalb County farmers have put up $40 apiece to hire their own farm-management consultant. Paid in part with federal funds, youth leaders head up 4-H Clubs and Future Farmers—overlapping groups which together do not reach two thirds of the farm boys and girls. Two 4-H leaders get a total of $2,940 in federal funds, while 23 teachers, who spend a portion of their time leading Future Farmers and Future Homemakers groups, get $14,790 of their pay from the federal treasury. PMA committeemen (three to a township) get $8 a day.

Doesn't make much sense, does it? And yet even such a rugged individualist and free enterprising farm leader as Allan B. Kline, president of the American Farm Bureau Federation, gives us the dismal prophecy that we are far from seeing the end or even the diminishment of this sort of thing. He says we've got to reconcile ourselves to living a long time with big labor, big business and big government. He does not, however, rule out the possibility of imposing curbs and corrections, not upon the bigness of any of them but upon their misdeeds and follies. There are checks and balances upon business, labor will be called upon more and more sternly to accept economic and moral responsibilities, and lastly, since it is the most powerful of all, government, too, must be made to mend its ways. We can survive—and thrive under—the big business and the big labor, but unless it is curted the big government will destroy us.

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Indicated 1950 Wheat Crop Above Domestic, Export Requirements

WASHINGTON—Wheat prospects again point to a crop that will be larger than domestic disappearance and exports, unless growing conditions from now on out are below average, the Bureau of Agricultural Economics states in its April Wheat Situation report.

In this event, prices will fall below the loan following harvest but should average close to it for the 1950-51 marketing year as a whole. Loan rate average may be slightly below 1949 when it was $1.95 on a national farm basis and from $2.20 for No. 2 hard winter at Kansas City.

Total disappearance of wheat in 1949-50 is now expected to be about 1 billion bushels. Domestic use may total about 687 million, consisting of 491 million for civilian and military food, 81 million for seed and 115 million for feed. Exports July-March totaled about 237 million and shipments to territories of the U.S. 3 million. If exports for April-June are at about the same rate as in the past nine months, the total for the year would be about 310 million bushels. This would leave a carry-over July 1, 1950, of about 450 million bushels compared with 307 million July 1, 1949.

Prospects Estimated

A winter wheat crop of 764 million bushels was indicated as of April 1. Production of spring wheat has not yet been estimated, but moisture conditions so far are generally good. However, if yields per seeded acre should equal the 1944-48 average on the acreage indicated by farmers' March intentions, about 300 million bushels would be produced. Assuming a production of 300 million bushels of spring wheat and 764 million bushels of winter wheat would give a total wheat crop of 1,064 million bushels. With a domestic use of near 700 million bushels, a crop of this size, together with a prospective carry-over of about 450 million bushels, would provide about 814 million bushels for exports in 1950-51 and for carry-over July 1, 1951.

If exports approximate 300 million bushels in 1950-51, about 500 million bushels would remain in the carry-over July 1, 1951, which compares with the record high in 1942 of 631 million, and the prewar (1932-41) average of 235 million. Exports of 300 million bushels would be substantially below the record 500 million bushels exported in 1948-49, but still considerably above the 169 million-bushel long-time average.

A total of 72,750,000 acres of all wheat is reported seeded or to be seeded for 1950. This is 14% below seeding for the 1949 crop, but 10% above the 1939-48 average of 66,030,000 acres. It is a little below the national wheat allotment total, as revised upward by Public Law 272.

Prospects Promising

Prospects for winter grain in continental Europe are promising, with little winter damage reported. Total bread grain acreage there is expected to show some increase over the 1949 area. In the Soviet Union weather conditions in the fall were not particularly favorable and some regions lacked adequate snow cover until late winter. Spring wheat seedings in Canada will begin soon, and will be influenced to a great extent by subsoil moisture conditions at seeding time. In late March a shortage of subsoil moisture was reported over much of the wheat belt.

The 84.9 million acres seeded to wheat for the 1949 crop was the largest in the history of the U.S. The previous peak was 80.8 million acres in 1937. A total acreage in 1950 indicated at 72.75 million acres is a reduction of 14% from seedings for the 1949 crop, but an increase of 23% from the 59.26 million-acre average for 1939-43 when exports were small and carry-over stocks accumulated.

Yield per seeded acre of 14.6 bu. for 1950 is calculated on the basis of conditions of winter wheat as of April 1 and about average condition for the remainder of the year, and a spring wheat yield equal to the 1944-48 average. This yield of 14.6 bu. is above the 13.5 bu. obtained in 1949, but below the 16.3 bu. average in 1941-48, when yields were high.

An abnormal world demand for bread grains made it possible to move the excess over domestic needs from wheat crops produced in 1944-48, each in excess of one billion bushels. Large exports also held down the increase in the size of the carry-over July 1, 1949.

Supplies of wheat in the four principal exporting countries Jan. 1, 1944, were a record 2,206 million bushels. By January, 1946, they were down to 1,397 million and in 1947 were 1,352 million. Greatly increased disappearance was caused by wartime depletion of food supplies in importing countries and by poor crops in

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many areas. Since 1947, supplies have increased and on Jan. 1, 1950, they were 1,683 million bushels—7% above the 1945-49 average of 1,574 million, but 24% below the peak in 1944.

—BREAD IS THE STAFF OF LIFE—

Wheat Supplies of Top Producing Nations Up 13%

WASHINGTON—Total supplies of wheat remaining for export and carryover April 1 in the four principal exporting countries of about 921 million bushels is 13% above the 817 million bushels a year earlier, the Bureau of Agricultural Economics reports.

While April 1 supplies were 64% above the 1935-39 average of 561 million bushels, they are only about half of the peak 1,782 million bushels reached on April 1, 1943.

Of the total supplies available for export and carryover remaining on April 1, 1950, 527 million were in the U.S., 185 million in Canada, 120 million in Australia and 89 million in Argentina. July-March exports from the U.S. totaled 237 million, which is down 39% from those in the same period a year earlier.

December-March exports from Australia totaled about 33 million, down about 8%. December-March exports from Argentina at about 36 million bushels were up 57% from the low level a year earlier. August-March exports from Canada at about 145 million bushels were up 8% compared with the same period a year earlier.

Supplies remaining in Argentina and Australia are for export during the remainder of the year ending Nov. 30, while those in the U.S. are for export through June 30 and in Canada through July 31.

—BREAD IS THE STAFF OF LIFE—

CHARLES C. DYBVIG NEW HEAD OF PRETZEL FIRM

PHILADELPHIA — The American Cone and Pretzel Co., which manufactures Rold Gold Pretzels, has announced that Charles C. Dybvig has been elected president of the firm by the board of directors.

Mr. Dybvig, who moved up from vice president in charge of sales, told stockholders that the year 1950 should be one of substantial progress for the company because of the introduction of some new packages and a contemplated advertising and promotional campaign. He said 1949 sales were well ahead of 1948.

Kenneth J. Pezrow has been named to the board of directors and will serve as a sales consultant. Mr. Pezrow, a manufacturers representative in New York City, has had wide experience in the food trade.

—BREAD IS THE STAFF OF LIFE—

AMF REELECTS BOARD AT STOCKHOLDERS MEETING

FLEMINGTON, N.J. — Morehead Patterson, chairman of the board, has announced that the board of directors of the American Machine & Foundry Co. was reelected at the annual meeting of stockholders here. The 11 directors are: George Arents, George S. Hastings, Daniel H. Haynes, J. W. Herman, George S. Hills, John W. Hooper, Knox Ide, G. A. Ingalls, Morehead Patterson, Roland P. Soule and R. F. V. Stanton.

LA GRANGE FLOURS . . .

whether plain or enriched, remain the same high standard, dependable flours that have characterized the products of La Grange Mills over the half century and more of their operation.

This quality pattern is not an accident but the result of painstaking care in wheat selection and careful milling.

☆

You can depend on
LA GRANGE FLOURS

☆

LA GRANGE MILLS RED WING MINNESOTA

SPRING WHEAT FLOURS

RED WING SPECIAL
BIXOTA
CREAM *of* WEST

PRODUCE BREADS WITH TASTE APPEAL

THE RED WING MILLING CO.
RED WING, MINNESOTA

Wheat Washed with Our Own Artesian Well Water.
Flour Tested and Baked in Our Own Laboratory.

104 YEARS OF MILLING EXPERIENCE
PLUS MODERN LABORATORY CONTROL
ASSURES THE BAKER EXCELLENT RESULTS WITH:

HUMMER—Spring Hi-Gluten
LIBERTY—Short Spring Patent
BEST PATENT—Standard Spring Patent
LOTUS—Strong Spring Patent
STRONG BAKERS—First Spring Clear
CAKE and PASTRY FLOURS
RYE—White - Medium - Dark

GEORGE URBAN MILLING CO. BUFFALO N. Y.

A. E. BAXTER ENGINEERING CO.
Designers and Engineers for Mills, Elevators and Feed Mills
ELECTRIC BUILDING BUFFALO 1, NEW YORK

CANADIAN TRADE COMMENT

By A. H. Bailey

TORONTO — The Alberta Wheat Pool, in a recent bulletin, drew attention to the fact that there are not many people in Canada who appreciate how low the price of wheat for domestic consumption was kept during the war and postwar years. Up until September, 1947, Canadian consumers bought their bread on the price basis of wheat at 77½¢ bu. In certain postwar years government subsidies kept the price down, the wheat producers having received more than that figure for their product.

The average price of Canadian Wheat Board sales to the domestic market for the four years from Aug. 1, 1945, to July 31, 1949, was $1.60 for 204,090,130 bu. In this four-year period wheat was sold for domestic consumption not only substantially below the U.S. prices but also, for a period, below the price paid by the British.

LAKEHEAD NAVIGATION SLOW

Reports from the lakehead give little encouragement as far as the opening of navigation is concerned. In some quarters it is felt that unless there is a drastic improvement in the situation navigation on the Great Lakes will not be officially opened until around May 1. This would be the latest date since 1947 when navigation commenced on May 8. Last year vessel operations were in full blast by April 11.

Shipping officials predict that there will be a critical grain shortage in Montreal before the end of April. Although some 4 million bushels of wheat were accumulated in granaries, officials pointed out that first ocean-going ships would begin loading at Montreal April 20 and as the first ships from the Great Lakes are not expected to arrive before April 30 at the earliest, this period likely will produce an acute situation.

NEW AGRICULTURAL MARKETING PLAN SEEN

J. G. Gardiner, minister of agriculture, speaking in Kingston, Ontario, on April 18, said that the government is trying to work out a new agricultural marketing plan that can function under private enterprise with the minimum of government interference. While not disclosing how the new plan will be worked out, Mr. Gardiner said the government's greatest concern at the moment was that Canada's production should be at a level which will take care of that nation's possible markets.

His speech followed Ottawa reports that the government may get out of the butter business and it is expected that the government will just support the price as it does in the case of eggs. However an announcement on new butter support policies is expected within the next two weeks.

Mr. Gardiner said the government was supporting the prices of [illegible] products in return for farmers' consent to accept less than the world price for their products immediately after the war.

FOOD MISSION TO CLOSE OFFICES

The U.K. food mission will close its office at the end of the year after nearly 10 years of operation, according to recent reports. Its withdrawal will coincide with the expiration of British-Canadian food contracts. Since 1941 it has spent $3,889 million in Canada. Part of the money came from loans by Canada, part from outright Canadian gifts, some from Marshall Aid funds and some from earned dollars.

PHILIPPINE TRADE DESIRES LISTED

Pedro Ramirez, Philippine consul in Seattle, speaking in Vancouver recently said that while the Philippines buy a good deal of flour and plywood from Canada they would like to buy more goods but in order to do so they must sell copra, hemp, logs and lumber which are their chief export products, to Canada.

DIFFICULTY IN WHEAT SALES SEEN

In moving for the introduction of his bill to amend the Wheat Board Act, C. D. Howe, minister of trade, told the House of Commons on April 20 that he anticipates more difficulty in selling Canada's surplus wheat from now on than has been experienced in recent years but still expects it will be sold. There is little doubt, he said, that we are passing from a seller's market to a buyer's market, in which there is not likely to be a shortage of supply.

Dealing with the current wheat situation, Mr. Howe said, the only producing country which is beginning to accumulate stocks is the U.S. As against that, the current forecast for winter wheat production is low. Abnormally large harvests might change the picture but unless that happened, the situation would remain sound.

The long-term wheat contract with Britain, which ends July 31, has enabled Britain to get most of her wheat requirements from Canada for three out of four years at less than she would otherwise have had to pay. On the other hand, Canadian farmers had received the best returns they had had in any peacetime period.

The exclusive powers of the wheat board had been necessary to carry out the British contract, and the same powers were also desirable for the carrying out of the multilateral wheat agreement to which Canada was not committed and which, Mr. Howe believed, would be a stabilizing factor in the market. That, he added, was the reason the government was asking that the wheat board be given an extension of its powers. The purpose of the bill under discussion is to continue the wheat board's exclusive powers over the marketing of the western wheat crop for another three years and to revert to the earlier system of one-year pools following completion of the present five-year pool on July 31.

Principal producer organizations are reported to have also asked that the Canadian Wheat Board continue to function.

Political Row Develops as Result of Imported vs. Home-grown Food Issue

LONDON — A first class political row which resulted in the resignation of Stanley Evans, parliamentary secretary to the British Ministry of Food, after holding office for only 65 days, has currently highlighted the controversy frequently debated by informed observers concerning the respective merits of growing more food at home at high costs or buying abroad at cheaper rates.

Some British traders, who expected that the appointment of a business man of Mr. Evans' caliber to an official post within the food industry would lead to greater flexibility in administration were disappointed that his tenure of office was so short. After he had voiced criticisms of the government's policy of subsidizing agriculture, thus releasing a volume of complaint and suspicion concerning the socialist attitude to farming and the maintenance of the subsidy system, Clement Attlee, prime minister, had no alternative but to demand Mr. Evans' immediate resignation. This was given and the offending minister proceeded to snipe the government from a provincial hideout in North Wales, reiterating his criticisms and stating that to hold office while disagreeing with the policy would "brand him as a hypocrite."

During March, after Mr. Evans had stated that the British consumer had "become a milch cow milked continuously by the farmers," he was repudiated by his chief, Maurice Webb, recently appointed Minister of Food in succession to John Strachey. The crux of Mr. Evans' criticism was that it was manifestly wrong to attempt to grow in Britain food products which could be grown more efficiently in other countries.

Enlarging on this theme at a press conference in Manchester during the middle of April, Mr. Evans caused shocked surprise in farming circles when he declared that no other nation "featherbedded" its agriculture like Britain. In an all-out attack on the subsidies paid to the farmers by the British taxpayer, Mr. Evans suggested that the time had arrived to ask whether the cost of providing farmers with guaranteed prices and assured markets had not "reached a level which neither the consumer nor the taxpayer could afford." He went on to ask whether the farmers' present privileged position could be maintained. He suggested that high subsidies concealed a "good deal of inefficiency and inertia." The taxpayer, Mr. Evans declared, did not have a "bottomless purse out of which he could subsidize the industry."

Observers described this statement, coming from a responsible minister, as a startling departure from announced Socialist policy, which states that as far ahead as could be foreseen there would be assured markets at guaranteed prices for the greatest possible quantities of nearly all the main products of British farmers. The manifesto goes on to state: "If we are all to enjoy more food, we must grow more here in Britain. A virile and expanding agriculture is vital to a healthy British economy."

Direct Contradiction

Mr. Evans' views are in direct contradiction of the official government policy to legislate for an expanding and not a contracting home agriculture. Observers point out that the whole aim of the expansionist policy, announced in 1947, was to grow more food permanently in Britain in order to balance overseas payments under the new conditions imposed by the postwar era. This necessity has been frequently expressed by Socialist officials, notably Tom Williams, minister of agriculture, who stated that greater acreages of wheat must be sown in order to reduce Britain's dependence on dollar wheat.

While both main political parties, the Socialists and the Conservatives, are not anxious to give any impression of letting up on their agricultural support policies, which are similar in most respects, in view of the need to attract the agricultural vote at the next election, there is undoubtedly some body of support for the views put forward by the rebellious Mr. Evans. In respect of additional wheat growing, experts have frequently stressed that the high cost of growing wheat on unsuitable marginal land is making it an uneconomic proposition, despite the prevailing difficulties of making needed purchases in the U.S. and Canada. Undoubtedly the dollar shortage makes it necessary to cut to the minimum Britain's overseas requirements but whether such cuts should remain as a permanent feature of British trading policy is a matter of concern to many people.

EUROPEAN ROUNDUP

By George E. Swarbreck

LONDON — The rapidly easing food supply situation in Britain is expected to result in some increases in the distribution of rationed foods in the near future. Although stocks are stated to be better than at any time since the end of the war, the government has hitherto refrained from making an increase because of the hike in subsidy contributions which would be required. The authorities have decided that these subsidies payable out of internal revenue to keep the price of food at an economic level, must not be allowed to increase. Indeed, the policy is now directed the other way and some subsidies are being reduced or taken away altogether. This has happened in the case of feedstuffs where the complete withdrawal of the subsidy, formerly costing the country over $100 million a year, has resulted in a sharp hike in feed prices. As compensation for the farmers, prices of certain agricultural commodities have already been increased to the consumer.

The cost of living in Britain is increasing rapidly in accordance with the forecasts made when the pound was devalued in terms of the dollar last September. The problem now facing the government concerns the method of increasing food rations

while at the same time checking any rise in food subsidies. Some observers have suggested that a two-price scale will be introduced in the near future. The quantities now available against ration coupons will still continue to be sold at the existing subsidized price while additional supplies will be available off the ration at prices considerably higher and calculated without the benefit of government subsidy.

The flour trade is interested in this suggestion because it ties up with the proposal for the introduction of a lower extraction flour to satisfy those consumers pressing for a whiter loaf.

It may be decided that millers will be allowed to mill a lower extraction flour which will be sold at a price higher than at present prevailing under the subsidy aid scheme. In other words, white bread would bear a luxury price. This system has already been in force in The Netherlands for some time and there it was observed that it was the manual workers who preferred the higher priced white loaf, the middle or professional classes continuing to take the darker subsidized loaf. This was attributed to the fact that the manual workers' earnings have risen considerably in recent years while those of the white collar workers have not increased in proportion to the rising cost of living. The middle classes, having to keep up appearances, economized on food. This same tendency may be exhibited in Britain if the two price scale is introduced.

ITALIAN GRAIN PRODUCTION RISING

Agricultural production in Italy, which is responsible for earning about one third of the national income and gives employment to nearly half of the working population is reported to have reached 95% of the prewar level during 1949. Production figures for wheat show that the outturn in 1948 was 6,136,000 metric tons and in 1949 6,940,000 tons compared with the average of 7,551,000 tons in the years 1936-39. Corn production was 2,254,000 metric tons in 1948 and 2,360,000 tons in 1949. The 1936-39 average was 2,960,000 tons.

The cultivation of American hybrid corn is to be considerably expanded this year. Over 2,000 tons of seed, covering 17 varieties, are to be imported as a result of the successful experiments carried out in 1949.

The Italian government has decided to devote a large sum of money to land development and agrarian reform, finance being provided from ECA local counterpart funds, from internal and foreign loans and from taxation. The fundamental soundness of the agricultural industry is considered by the government to be an important factor in maintaining economic stability.

PLANS FOR RUSSIAN GRAIN SURPLUS

A member of the Russian delegation to the agricultural committee of the United Nations Economic Commission for Europe stated at Geneva that Russia was prepared to sell large quantities of bread and feed grains to western Europe. Attempts to obtain concrete figures of availabilities, made by members of the ECE staff failed and some observers suggest that little reliance can be placed on these claims, at least as far as wheat is concerned. Some coarse grains appear to be available but all the evidence is against active participation in the wheat trade for this year at least. The fact that Finland failed to cover her 1950 requirements in Russia, after receiving nearly all she needed in 1949 is considered to be a pointer to the conditions of shortage now existing in the Soviet Union. Finland, after buying from the Argentine and elsewhere has signed a contract for the supply of 10,000 tons of wheat from France for immediate delivery.

AUSTRIAN GRAIN IMPORTS FROM U.S.

During 1949 Austria imported 416,000 tons of wheat, 53,100 tons of flour and 127,000 tons of rye. The whole of these supplies came from the U.S.

—GRAIN IN THE STATES OF LIFE—

CANADIAN EXPORTS AT 1,550,000 BU. FOR WEEK

WINNIPEG—More than 1,550,000 bu. Canadian wheat and flour was reported sold for export last week. The bulk of this shipment, in the form of wheat, totaled 1,181,000. International Wheat Agreement countries taking wheat included: U.K., 565,000; Belgium, 133,000; Ecuador, 11,000. Wheat sales to Class 2 countries were as follows: Japan, 301,000; Colombia, 8,000; El Salvador, 10,000, and Honduras, 3,000.

Flour shipments totaled 372,000 bu. and of this amount 263,000 bu. went to the following IWA countries: Philippines, Costa Rica, Cuba, British West Indies, Dominican Republic, and the Belgian Congo. There were six Class 2 destinations taking 109,000 bu. wheat only: Tangier, Barbados, St. Lucia, Hong Kong, El Salvador, and Venezuela.

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QUALITY ABOVE ALL ELSE
SILK FLOSS
BREAD AND CAKE FLOURS
Santa-Fe Trail
Finest Short Patent
KANSAS MILLING CO.
WICHITA, KANSAS

Many flour buyers are pretty keen on arithmetic when it comes to buying flour, but some of them don't carry this arithmetic to its final conclusion. For along with a comparison of flour prices, the buyer should put down the cost of potential shop trouble . . . cripples, stick-ups, etc. . . . that can result from inferior flour. The cheap price may then not seem so cheap. SILK FLOSS and SANTA FE TRAIL are always reliable.

CAPACITY 10,000 CWTS.
STORAGE 4,500,000 BU.
SINCE 1894

U.S. Issues List of "Trading Material" for Tariff Meeting

WASHINGTON—The U.S. government released a long list of agricultural commodities this week for U.S. representatives to use as "trading material" during the September, 1950, sessions of the nations meeting on tariffs at Torquay, England.

The commodities, listed in part below, will constitute those which will be subject to submission of testimony before the committee on reciprocity information, which will open hearings here May 24, 1950.

At that time this committee, composed of representatives of the State Department, the U.S. Department of Agriculture, the Department of Commerce, and the Treasury, the attorney general and the tariff commission will hear representatives of U.S. parties who wish to be heard on the inclusion of these commodities as trading material or concessions for compensating reductions in tariffs by foreign countries on U.S. commodities and goods.

The committee on reciprocity information only makes recommendations based on the testimony submitted at these open public hearings. All interested parties are permitted to be heard but they should notify the committee of their intention to appear.

In the field of grain and grain products, the U.S. has set up barley malt, unhulled ground oats, cereal breakfast foods and similar preparations, biscuits, wafers, cake and cakes, similar baked products and puddings by whatever name known whether or not containing chocolate, nuts, fruit or confectionery of any kind as potential concession items.

Other objects subject to U.S. concessions at the tariff meetings in England in September are grass and forage crop seeds and a broad list of floricultural bulbs and seedlings. Included in the foregoing are another list of field and garden seeds.

Other objects to the tariff trading intentions of the U.S. negotiations which will be governed by the outcome of the hearings here by the committee on reciprocity information will be potential reductions in import duties on oilseed cake and meal, except copra, cottonseed, peanut, linseed and hempseed, unless especially provided for and mixed feeds consisting of mixtures of oil cake, meal, molasses or other feedstuffs.

QUARTER'S NET REPORTED BY NATIONAL BISCUIT

NEW YORK—National Biscuit Co. earned $4,976,521, or 72¢ a common share, in the first quarter of 1950, according to George H. Coppers, president. These earnings compared with $5,299,533, or 77¢ a share, for the first quarter of 1949. Net sales for the first quarter of 1950 were $72,673,140, a decrease of 3.93% from the first quarter of last year when sales were $75,646,245.

"We believe that economic conditions for the first quarter were not as favorable to the sale of food products as in the first quarter of last year," Mr. Coppers said. "I refer to work stoppages in various basic industries and consequent unemployment. This, together with somewhat lower prices, accounted for the slight sale decrease.

"We believe the sales of our products will continue at high levels for the remainder of the year, although we expect and are prepared for more active competition for the consumers dollar."

SHELLMAR PAYS 40¢

MOUNT VERNON, OHIO—At its meeting on April 10, 1950, the board of directors of Shellmar Products Corp. declared a regular quarterly dividend of 40¢ a share on the corporation's $6 par value common stock, payable July 1 to stockholders of record June 15. A regular quarterly dividend of 59⅜¢ a share also was declared on the $50 par value, 4¾% preferred stock, payable June 30 to stockholders of record June 15.

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JUTE and COTTON BAGS
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THE CANADIAN BAG COMPANY
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Successors to Wolverton Flour Mills Co., Ltd.
Canadian Spring and Winter Wheat Flour
"SILVERKING" "GREAT STAR" "WOLF" "KEYSTONE"
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EXCELLENCE FLOUR MILLS LIMITED
Canadian Hard and Winter Wheat Flour
"GOLD STAR" • "EXCELLENCE" • "ROSELAND" • "MAGIC"
Cable Address, Bertargeon, Sea. Always "Excellence" in Name and Quality
Delth, Ont., Canada

Export Flour
INSURANCE
"All Risks"
Special Service to Flour Mills on Export and Domestic Ocean and Lake Insurance and Transportation
Forty Five Years' Experience in Export Flour Handling
Western Assurance Company
TORONTO, CANADA
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TELCO
We offer our own processed Expeller
LINSEED
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Fast Delivery
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Summer Hill, Sydney, N.S.W., Australia

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Photographic Pose suggested by "The Gleaners" painted by Jean Francois Millet.

Are These Your Daughters in 1960?

Right now—right this minute, in some parts of the world women are slaving in drudgery in the fashion of "The Gleaners."

Why? How can such conditions exist?

Simply because people have given up their *individual* freedom to think and act and live according to their own desires.

They have embraced the faulty thinking of the "ism-planners." They have taken up all manner of "isms" and "welfare plans" and "Socialism."

Nowhere in the world has a government of "isms" brought anything but individual suffering and a collective headache.

Yet with all this evidence, similar thinking is going on right here in America.

Don't be fooled by innocent sounding "plans" and "controls." They're "ism" thinking. They're dangerous. They lead to slavery and suffering. Will your daughters in 1960 be the innocent victims of "ism" thinking?

Let's stop the nonsense and fight to preserve the American way of *enterprise* and *incentive*—the way of life that has made America great.

If we lose our freedom we lose everything. We lose our America.

• • •

We at Cargill firmly believe that *only* under the freedoms of the American system have we been able to grow and better serve American Agriculture. We have the incentive to devise better methods of handling your grain—to develop better seeds for you to plant—to make better feeds for your livestock and poultry.

Let's be realistic rather than stumble into the paths of dreamy planning. Let's strive to strengthen our free American way of life and go on to still bigger and better triumphs.

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WALNUT CREEK
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KANSAS CITY, MO.
OPERATING FIFTEEN COUNTRY ELEVATORS AND SUBTERMINALS WITH A STORAGE CAPACITY OF A MILLION BUSHELS

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The Choice of the Finest Hard Wheats
The only mill in this great terminal market, Duluth Universal consistently offers you a
BETTER SPRING WHEAT FLOUR
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I. E. LARRABEE TO HEAD OKLAHOMA GRAIN MEN

Oklahoma Grain & Feed Dealers Assn. Holds 52nd Annual Meeting in Oklahoma City

OKLAHOMA CITY—The 52nd annual meeting of the Oklahoma Grain & Feed Dealers Assn. closed here April 15 with the election of I. E. Larrabee, Burrus Mill & Elevator Co., Kingfisher, president; Carl Newberry, W. B. Johnston Grain Co., Inc., Enid, vice president, and E. R. Humphrey, E. R. Humphrey Grain Co., Enid, secretary-treasurer.

New directors of the association are J. P. Ewing, Tex-Homa Grain Co., Enid; Clyde Caudell, Adair Elevators, Inc., Altus; Claude Nickell, W. B. Johnston Grain Co., Inc., Alva; J. A. Feuquay, Feuquay Grain Co., Enid, and E. J. Minshall, Fisher Grain Co., Woodward. Three hundred persons attended the meeting which for the first time was held outside of Enid.

Of paramount interest to the grain men were the widely divergent estimates of the state's wheat crop which ranged from 40 to 60 million bushels. The outgoing president, Frank Stauffer, Moore-Stauffer Grain Co., Chickasha, estimated the crop would be around 50 million bushels. He said that Oklahoma had lost one million acres through crop reduction and another 25% through abandonment caused by drouth and insect infestation.

Ray B. Bowden, executive vice president, Grain & Feed Dealers National Assn., in a speech recommended that Congress appoint an independent commission to work out a fair farm program. He pointed out faults in both the current support program and the Brannan plan.

Other speakers included Steven Stahl, executive secretary of the Oklahoma Public Expenditures Council, and Walter C. Berger, president, American Feed Manufacturers Assn.

—BREAD IS THE STAFF OF LIFE—

WAGGONER-GATES MAKES CHANGES IN PERSONNEL

INDEPENDENCE, MO.—Harry K. Waggoner, treasurer, of the Waggoner-Gates Milling Co., Independence, Mo., announces the following changes in the company's personnel:

Thomas P. Cunningham, secretary and manager; Ed J. Long, vice president in charge of sales; Dan A. Lovelace, plant superintendent; Lester J. Brenneis, chemist.

Arch B. Waggoner is president of the company and John S. Waggoner is vice president.

The Waggoner-Gates firm does a substantial volume of business with the cracker industry as well as high ratio and intermediate cake flour business with the baking industry. The firm's brand, Queen of the Pantry Flour, has been milled and distributed in the trade territory since 1867.

—BREAD IS THE STAFF OF LIFE—

CONTINENTAL BAKING CO. REPORTS INCOME DECLINE

NEW YORK — The Continental Baking Co. has reported net income for the 13-week period ended April 1 of $784,710.21, compared with $1,320,971.19 for the 13-week period ended March 26, 1949. Gross sales for the 1950 period were $35,062,650.41, compared with $36,869,699.67 for the comparative period the previous year.

The Rodney Milling Co.
15,000 Cwts. Capacity
Grain Storage 1,350,000 Bus.
KANSAS CITY, MISSOURI
"Heart of America" FLOUR
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American Ace
—A superior bread flour, milled in one of the West's very finest flour mills.
American Flours, Inc.
NEWTON, KANSAS

ACME — GOLD DRIFT
Better Bakery Flours
These Brands Meet Every Shop Need
The ACME FLOUR MILLS CO.
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Mother Hubbard
FOR QUALITY FLAVOR AND ECONOMY
Flour Hubbard Milling Co.

"CREMO"
Just the Cream of Hard Wheat
CROOKSTON MILLING CO.
CROOKSTON, MINN.

Evans Milling Co.
INDIANAPOLIS, IND., U. S. A.
Manufacture Kiln-Dried
WHITE CORN PRODUCTS
Capacity, 16,000 Bushels

Chickasha Milling Co.
Capacity 1,500 sacks — CHICKASHA, OKLA. — Cable Address Wacbilla
Manufacturers of High-Grade Hard Wheat Flour
Foreign and Domestic Trade Solicited
Member Millers' National Federation

ANALYSES
FLOUR FEED WHEAT
PROMPT ACCURATE LABORATORY SERVICE
THE MID-WEST LABORATORIES INC.

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CORN FLOUR - CORN MEAL
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Manufacturers of Pure High-Grade Winter Wheat Flour
Brands: Lebanon Soil, Flake White, Fluffy Ruffles — LEBANON, ILL.
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SEMOLINA
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AMBER DURUM WHEAT

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IT'S BIN AGED

Flour from this mill comes to you fully aged — ready to use

ATKINSON MILLING CO.
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ANALYSES
FLOUR—CEREAL—GRAIN
Dependable Prompt Service
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Lyon & Greenleaf Co., Inc.
SELLING AGENTS OF
High Grade Soft Winter Wheat Flour
Plain and Self-rising
LEXINGTON, KY. NORFOLK, VA.

WE ARE LARGE BUYERS
of PURIFIED MIDDLINGS
and PURIFIED WHEAT GERM
We will be glad to get your quotations
The Cream of Wheat Corporation
Minneapolis, Minnesota

Self-Rising Institute

(Continued from page 13)

institute owes him a vote of thanks for his efforts to serve the industry of which he is a member."

In connection with Mr. Skidmore's address, Mr. Cornelius erected a display which portrayed the possibilities of a Home Baking Center for retail outlets.

Mr. Cornelius reported that the efforts of the institute to bring to a satisfactory conclusion the merchandising program launched at the 1948 meeting at Atlanta have progressed. He called the program "one of the most, if not the most, constructive program ever instituted by the Self-Rising Flour Institute."

A discussion of the grocery product sales council plan was held, and the flour institute will have a program for the next six months on "get flour up front." A panel discussion by the members will be held on this subject at the October meeting in Nashville.

"Make the housewife baking conscious" was heard frequently during the institute's first two-day convention.

Mr. Cornelius brought to the attention of the institute that through the efforts of Mr. Davis and J. R. Smithson, the Attala Co., Kosciusko, Miss., the Mississippi legislature April 14 passed a uniform flour package law.

Mississippi is the most recent state to adopt such a law, the majority of the states having already passed one, Mr. Cornelius said.

Mr. Cornelius reported that the institute presently has 51 members and that prospects are that it will be strengthened by several additional members this year. The membership, he said, is in three categories: 21 regular members — blenders, family flour merchants; 19 allied members — trade companies and millers who cater to business of the blenders; and 11 associate members—flour brokers.

Jack Morris, Cherokee Mills, Nashville, Tenn., outgoing treasurer, reported that the financial condition of the institute was "satisfactory."

For the election of the new officers, Mr. Davis had appointed a nominating committee composed of L. A. Brooks, Cosby-Hodges Milling Co., Birmingham, Ala., chairman; C. B. Nichols, Happy Vale Flour Mill, Griffin, Ga., and J. R. Smithson.

Convention entertainment was highlighted by a boat ride on the private yacht of R. A. Billups, Billups Petroleum Co., Greenwood, Miss. The boat ride included a stop at historic Ship Island, site of old Fort Massachusetts. Other entertainment included deep sea fishing, golf, swimming, sightseeing, a seafood jamboree and a trip to Bellingrath Gardens in Mobile, Ala.

BREAD IS THE STAFF OF LIFE

PHILADELPHIA FLOUR MEN TO DISCUSS INFESTATION

PHILADELPHIA—Harry N. Bernheimer, president of the Philadelphia Association of Flour Distributors, has announced that the principal discussion at the April 27 dinner meeting of the association will be devoted to the dangers of infestation.

The guest speaker for the evening will be Robert O. Boote, sanitation expert of the Vogel-Ritt Corp., pioneer in pest control. Following his address there will be questions from the floor on the problems encountered by local flour men in their individual operations.

KELLY'S FAMOUS FLOUR

YES,
KELLY IS FAMOUS
FOR GIVING THE BAKER WHAT HE WANTS — A FLOUR WHICH CONSISTENTLY MEETS HIGHEST, MOST RIGID BAKING STANDARDS.

The
WILLIAM KELLY
MILLING COMPANY
HUTCHINSON, KANSAS

Capacity, 5,000 Sacks Daily
Grain Storage, 1,000,000 Bus.

For Over Fifty Years...
KING'S GOLD
KING'S BEST
GOLD MINE
EXCELSIOR
...Made in Minnesota

Minnesota Best Flour in the World.

H. H. King Flour Mills Company
MINNEAPOLIS, MINNESOTA

Centennial FLOURING MILLS CO.
GENERAL OFFICES: 540 CENTRAL BLDG., SEATTLE 4, WASH.
DOMESTIC AND EXPORT MILLERS • DEALERS IN ALL TYPES OF PACIFIC NORTHWEST WHEAT

GOLD DROP PIE and COOKIE FLOUR
PYRAMID CAKE FLOUR
CENTENNIAL CAKE FLOUR
BLUESTEM and HARD WHEAT BAKERS FLOURS

6,500,000 bushels Country and Terminal Storage

MILLS AT SPOKANE · WENATCHEE · RITZVILLE · PORTLAND

MOSTLY PERSONAL

Elie Joseph, flour importer, Port-au-Prince, Haiti, was a visitor at the offices of Pillsbury Mills, Inc., during his recent stay in New York.

•

C. M. Johnson, manager, durum department, Commander - Larabee Milling Co., Minneapolis, spent a few days in the New York market during last week.

•

Edmund F. Pillsbury, divisional president in charge of grain merchandising, Pillsbury Mills, Inc., Minneapolis, was a visitor at the Kansas City Board of Trade April 20.

•

L. E. Bowman, Chicago, representative for Eagle Roller Mill Co., New Ulm, Minn., has returned from a vacation trip to Florida.

•

J. A. Willis, Jr., vice president and general manager Ismert-Hincke Milling Co., Kansas City, spent April 17-20 calling on the trade in the New York area with **J. H. Blake**, flour broker, and **Maurice Gertner**, associated with Mr. Blake.

•

Herman Steen, vice president and secretary of the Millers National Federation, Chicago, made a business trip to Kansas City last week.

•

The birth of a son April 14 has been announced by **Mr. and Mrs. David E. Price, Jr.**, Kansas City. Mr. Price is director of sales for the Percy Kent Bag Co. Mr. and Mrs. Price have two other children, girls, 4 and 2.

•

R. K. Durham, director, quality control department, Pillsbury Mills, Inc., Minneapolis, made his headquarters in the mill's New York offices April 19-21.

•

Theo. Staab, secretary of the Pennsylvania Bakers Assn., Philadelphia, and **Mrs. Staab** celebrated their 25th wedding anniversary April 13.

•

L. C. Brown, Birdsey Flour Mills, Macon, Ga., was a business visitor in Kansas City last week and was introduced on the Board of Trade by **Robert Anderson** of the Norris Grain Co.

•

John Elder, assistant general manager, Maple Leaf Milling Co., Toronto, was a recent New York Produce Exchange floor guest of **Harry K. Moore**, vice president, Maple Leaf Flour Mills, Inc.

•

Henry S. Crosby, vice president, director of plant engineering, General Mills, Inc., Minneapolis, is currently visiting Europe and has already taken in Switzerland and Italy. He was scheduled to reach Brunswick, Germany, April 25 and thereafter planned to visit London.

•

Robert F. Imbs, secretary-treasurer of the Imbs Milling Co., has returned to St. Louis after spending a vacation at Phoenix, Ariz.

•

Al Cardenas, export sales manager, Ismert-Hincke Milling Co., Kansas City, and **Mrs. Cardenas** have announced the birth of a 7 lb., 2½ oz. baby boy at St. Luke's Hospital April 20.

•

Harold F. Stock, president, F. W. Stock & Sons, Inc., Hillsdale, Mich., has returned from an outing in Florida.

•

Edward J. Grimes, vice chairman of the board, Cargill, Inc., Minneapolis, has been elected a director of the Chamber of Commerce to represent agriculture. Mr. Grimes, who recently was reelected president of the Minneapolis Chamber, was named for a two-year term starting May 1.

•

Fred L. Merrill, new head of the grain department of the Wichita (Kansas) Flour Mills Co., visited the Hutchinson, Kansas, grain trade last week. Application has been made for a transfer of the Hutchinson Board of Trade membership held by the mill in the name of the late U. L. Shelton to Mr. Merrill.

•

Dewey Robbins, milling superintendent for Fisher Flouring Mills Co., Seattle, Wash., spent April 24 in Minneapolis on business. He will attend the annual convention of the Association of Operative Millers to be held at Hotel Jefferson, St. Louis, May 1-5.

•

William F. Schnitzler, president of the Bakery & Confectionery Workers' International Union, recently was elected to the board of directors of the Union Labor Life Insurance Co. and, at the same time, was made a member of the executive committee of the company.

•

Harry C. Lautensack, president of the eastern division of General Mills, Inc., Buffalo, has been elected to the board of directors of the reorganized International Railway Company, Buffalo transit firm.

•

Ronald Steen, Stratton Grain Co., Chicago, son of **Herman Steen**, vice president and secretary of the Millers National Federation, will be married April 29 to **Miss Betty Griffin** of Milwaukee.

•

Howard W. Files, vice president, and **Bradshaw Mintener**, vice president and general counsel, Pillsbury Mills, Inc., Minneapolis, visited the offices of the Millers National Federation April 20.

SOUTHERN ALLIED OFFICERS—Officers elected by the **Southern Bakers Allied Assn.** at the group's recent annual meeting in St. Petersburg are shown above. Left to right, they are: **S. Fred Brown, Jr., S. Fred Brown Co., Atlanta, president; J. Frank Rees, Brown-Rogers-Dixson Co., Atlanta, vice president, and A. W. Beuvers, General Mills, Inc., Atlanta, secretary-treasurer.**

COMMANDER-LARABEE TRANSFERS TWO FROM K. C. TO MINNEAPOLIS

MINNEAPOLIS—The transfer of George A. Utter and J. W. Gilges from Kansas City to Minneapolis has been announced by Ellis English, president of Commander-Larabee Milling Co. Both Mr. Utter and Mr. Gilges will serve as regional sales managers in Minneapolis.

Mr. Utter, a native of St. Louis and a University of Missouri graduate, has been with Commander-Larabee since 1936. During this time he has served consecutively as salesman in the St. Louis territory, assistant sales manager and sales manager for both the eastern and western divisions with headquarters in Kansas City.

Mr. Gilges, whose home is Leavenworth, Kansas, is also a University of Missouri graduate. He joined the organization in 1939, and except for three years of military service, has been in sales work in the company's Kansas City office.

Coincident with their transfer, certain accounting and clerical functions previously handled in Kansas City are being transferred to the Minneapolis office of Commander-Larabee, according to Mr. English.

STRIKE AVERTED

NEW YORK—Notice was received on April 21 by members of the Metropolitan Bakers' Guild from Local 802 of the teamster's union that a strike would be called that night. However, there was no work stoppage because, following a meeting, the men agreed to continue work during contract negotiations. The employers group is wholesale rye bakers and include Messing Bakeries, Inc., Pechter Baking Co., Koster's Bakery, Inc., Geo. F. Stuhmer & Co., and Wisotsky Baking Co.

IWA Procedure for 1950-51 Discussed

KANSAS CITY—Sentiment of the milling and grain trade in this area toward certain changes recommended for administering the International Wheat Agreement during the 1950-51 pact year was sought at a special meeting at the Commodity Credit Corp. headquarters in Kansas City April 20. A member of the IWA staff of the corporation in Washington, M. M. Bennidt, was on hand to discuss future IWA policy with the trade.

After bringing the group up to date on the position of the U.S. as an exporting participant in the agreement, Mr. Bennidt opened discussion on four recommendations which had already been brought to the attention of the IWA staff. The first question was when to allow sales under the 1950-51 program to begin. The thinking of the local group was to begin sales as soon as possible. One thought was to coincide beginning of such business with the announcement of the interim loan rate on wheat due some time in May.

Discuss Limitations

An important problem which must be considered, Mr. Bennidt said, was whether to set up limitations on importing nations which desire to purchase large quantities of wheat or flour at one time for delivery over a long span of time. The consensus was that this problem was specifically confined to the flour business and that limitations should not be placed on wheat purchases or sales. Flour millers stated that there probably should be a 90 to 120-day limit to shipments specified by any particular sale.

The group had in mind several instances wherein one sale calling for shipments as far as six months ahead "bogged" the market and filled the quota for the specific nation. This situation would be abnormal, they say, in such areas as Latin America where most business is performed under mill brand names.

Whether unsold wheat should be shipped to another country and then parceled out to the trade in that nation, taking advantage of the subsidy payment at that time, was an additional problem. It was pointed out that in dealings with Belgium, where buying has returned to the private trade, purchases by individuals are naturally in small lots. It would facilitate ocean shipping arrangements if a U.S. firm could book full or half cargoes for shipment of the wheat to Belgium and then sell it in parcels after it is received in that country.

Recommended Procedure

The group's recommendation was that permission for such practices under the agreement would be in the best interests of both buyers and sellers and would be in line with the probable spread of free trade resumption in foreign nations.

The trade showed little evidence of favoring a change in the IWA machinery which would eliminate the listing of all foreign buyers under wheat agreement sales in a specific country and permitting just the principal buyer to be mentioned in the paper work involved. They felt that the detailed paper work which is now required is satisfactory and that such a ruling as the above might en-

T. L. Jones

PROMOTED—Arkell & Smiths has announced the promotion of T. L. Jones to the position of sales manager for its central division, supervising Michigan, Indiana, Ohio, western Pennsylvania, West Virginia, southern Illinois and Kentucky. He will continue to maintain headquarters at 1384 Grandview Ave., Columbus 12, Ohio.

courage "dummy" sales and would break down the machinery of the wheat pact.

Similar meetings have been conducted by Mr. Bennidt in other cities. At the gathering in Minneapolis two weeks ago flour millers indicated they were more interested in changing policies of the government in wheat pact dealings than in discussing matters of procedure at present.

—BREAD IS THE STAFF OF LIFE—

U.S. PLANT SCIENTIST GOES TO PHILIPPINES

WASHINGTON—Dr. O. A. Reinking of Cornell University recently went to the Philippines as a representative of the U.S. Department of Agriculture to become advisor on plant disease problems to agricultural authorities there.

M. F. Mulroy

(Continued from page 18)

by our government to increase our output of flour to meet the war demand. We did meet that demand and were hopeful that some of the export business would be retained and would make the after-the-war readjustment less painful. We not only have lost most of the increased exports due to the war, but now are faced with the loss of practically all export flour volume. Whenever we try to obtain relief, there seems to be some mysterious influence that prevents us from getting our problem considered by anyone who can do anything about it. If it is more important to the welfare of the world to turn our export business over to other exporting countries, then we should be so informed. The after-the-war readjustment in our industry is very serious and if it is necessary to make further readjustments caused by the loss of all of our export volume, we should know about it.

As of April 4 Canada has sold 83.6% of its total quota and we have sold only 37.5% of our total IWA quota. A great deal of this difference is due to inadequate subsidies on our wheat compared to the price of No. 1 Manitoba. Wheat and flour are sold on very close margins and only a slight difference in wheat prices means we cannot compete with the competition of other exporting countries.

You now admit a carryover of between 400 million bushels and 450 million bushels and you are trying to justify this very excessive carryover. You are advocating the use of wheat for other purposes than food. You are advocating that the Secretary of Agriculture ought to have powers to give away surplus stocks that are excessive. You are building temporary storage to store the excessive carryover. At the same time you are strangling our export flour business by holding your subsidy rates just too low to enable us to sell flour in competition with other exporting countries.

Control of Surplus

You can continue your support program to a point where you will control all of our surplus through taking over the farmers' wheat on your loan program. You now own 144 million bushels of wheat outright and you have under loan 378 million bushels. This wheat will cost the consumer the loan price plus all charges and the consumer will have to pay this price plus your loss in handling the crop support program to date. It does not matter whether the consumer pays costs in the bread consumed or in taxes, the money for taxes finally has to come from the consumer. The export volume we are losing now will add to the surplus and when the surplus becomes so large it has to be disposed of in a dumping program, the consumer will have to pay the loss in more taxes.

It would be much cheaper to increase and widen subsidies now and move wheat and flour when there is some demand. You, of course, can say the amount of export we are losing by not widening the subsidy is small. This small amount is life or death to many milling companies and even if it is only 10 million bushels of wheat per year, that amounts to 100 million bushels in ten years.

If it is not possible to widen the base of the subsidy to all countries, then consideration should be given to continuing the subsidy in countries that complete their IWA quotas. That would enable us to maintain our brands instead of allowing the substitution of brands from other exporting countries. The subsidy, of course, would be based on the difference between our prices, quality considered, and the world price of wheat. When wheat is exported, it immediately loses its identity and the users and final consumers of the wheat do not know what country it comes from. An importer will change his source of supply for a fraction of a cent per bushel.

Flour, on the other hand, is sold by brands and brand preferences enable us to maintain our business at price differentials that are sometimes substantial. The branded bag going into every exporting country tells everyone who sees the brand and every consumer that it is U.S. flour. The advantages of exporting flour instead of wheat for our own economy are very apparent—employment of labor, utilization of milling property, and the by-product advantages in lower feed prices which result in higher production and lower costs for meat and dairy products.

You can ask Congress to change the law again and some new "plan" will work when it is new but if the policy of strangling our exports is pursued, we will be up against the same problems later on. Crop controls spell the elimination of marginal lands but will result in higher production on reduced acreage. A new "plan" now will only mean another new "plan" later with no solution of the farm problem as long as the approach is to buy and store and build more storage when available space is not adequate.

The reports from all over the world indicate increased production of wheat in all importing countries and this means a reduction of the potential outlet for American wheat. The reduction in our crop prospects is not sufficient reason to do nothing. We can still produce 1 billion bushels of wheat this coming crop year and that would mean we would have to export 325 million bushels to avoid increasing our surplus over the present 450 million bushels we may carry over on July 1 this year. With the necessity of maintaining our export volume, it is highly important that subsidy rates should take into consideration full quality differentials and should be adequate to permit us to maintain and increase our export flour business.

The Stock Market Picture

Quotations on baking, milling and allied stocks listed on the New York Stock Exchange and the New York Curb Market:

	High (1949-50)	Low (1949-50)	Close April 11, 1950	Close April 22, 1950
Allied Mills, Inc.	39¾	27½	29	27⅝
Allis-Chalmers	33⅝	23⅝	33⅝	33
Allis-Chalmers, $3.25 Pfd.	94	80⅞	90½	90
American Cyanamid	74⅝	40	64	73⅝
American Cyanamid, Pfd.	173	142½	160⅝	173
Archer-Daniels-Midland Co.	45¼	29⅝	37½	37
Borden	52⅝	40¼	48⅝	50¼
Burry Biscuit Corp.	3¼	2⅝	3	3
Continental Baking Co.	19⅝	11	17⅛	13⅛
Continental Baking Co., $5.50 Pfd.	100	85½	97	98
Corn Products Refining Co.	72⅞	63½	67⅞	69
Corn Products Refining Co., $7 Pfd.	187½	182½	186¼	184
Cream of Wheat	30¼	19½	29¼	29
Dow Chemical	68½	34¼	63⅞	65
Dow Chemical, $4 A Pfd.	110⅝	100	110	109⅝
Dow Chemical, $3.25 2nd Pfd.	150	119½	143	144
**Flour Mills of America, Inc.	11	9½	10½	10¼
General Baking Co.	13	10⅝	11¼	10⅝
General Baking Co., $8 Pfd.	165	150	162½	160
General Foods Corp.	52⅝	47⅞	50	50¼
General Foods Corp., $3.50 Pfd.	107	99¼	106⅝	106½
General Mills, Inc.	57½	53	53	53¼
General Mills, Inc., 3⅝% Pfd.	111	100	110	109
General Mills, Inc., 5% Pfd.	129½	116	120	120
Great A. & P. Tea Co.	146⅝	130½	143	141½
Great A. & P. Tea Co., $5 Pfd.	137	130	134	135½
Hathaway Bakeries, Inc., "A"	11⅝	10⅝	10⅝	11
Horn & Hardart Corp. of New York	34	32⅞	33	32⅞
Horn & Hardart Corp. of New York, $5 Pfd.	111½	108½	111	109
Merck & Co.	55⅝	39⅞	46½	53⅝
Merck & Co., $3.50 Pfd.	98	88	97	*97
Merck & Co., $4 Pfd.	132	120	130	137
National Biscuit Co.	39⅞	36⅛	38¼	38⅛
National Biscuit Co., $7 Pfd.	186	181⅝	185	184⅝
Novadel-Agene	16½	13¼	15½	15
Omar, Inc.	18	11	17¼	16⅝
Pillsbury Mills, Inc.	34½	22⅛	33	33
Pillsbury Mills, Inc., $4 Pfd.	105½	100⅝	104	104
Procter & Gamble	67½	50	65⅞	65¼
Purity Bakeries Corp.	34⅞	28	33⅝	30⅝
Quaker Oats Co.	107¾	80	107½	107½
Quaker Oats, $6 Pfd.	158	144	157½	157½
Ralston Purina Co., $3.75 Pfd.	103½	100	100⅝	100½
St. Regis Paper Co.	9	7⅛	8⅞	8¼
St. Regis Paper Co., $4.40 Pfd.	90	83	87	*87
Standard Brands, Inc.	24	20¼	22⅝	22⅝
Standard Brands, Inc., $4.50 Pfd.	95½	88⅝	94¼	94⅛
‡Sterling Drug	39⅝	34⅞	38¼	38¼
‡Sterling Drug, $3.50 Pfd.	100	90	98½	99½
Sunshine Biscuits, Inc.	67⅝	53	62½	62¼
United Biscuit of America	32	30⅛	31⅞	30
United Biscuit of America, $4.50 Pfd.	110	106½	108½	107½
Victor Chemical Works	49⅝	44¼	47⅝	47⅛
Victor Chemical Works, $3.50 Pfd.	101	96⅝	*99	99
Wagner Baking Co.	9⅝	7½	7½	7½
Ward Baking Co., Warrants	6⅛	4½	4½	4½
Ward Baking Co.	16⅛	10	16⅛	15⅝
Ward Baking Co., $5.50 Pfd.	101	97	102	100

	Bid	Asked
*Colorado Milling & Elevator Co.	11½	13
†Safety Car Heating & Lighting Co., Inc.	16½	17½
†Standard Milling Co.	5⅝	6⅝

Closing bid and asked prices on stocks not traded April 22:

	Bid	Asked
Horn & Hardart Corp. of New York, $8 Pfd.	161½	167
Wagner Baking Co., Pfd.	110	117

*Previous close. **Midwest stock market. †Over counter. ‡Subsidiary Sterwin Chemicals, Inc.

Canadian Stocks

	High (1949-50)	Low (1949-50)	Close April 6, 1950	Close April 14, 1950
Canada Bread	3.87½	3.25	3.80	3.85
Canada Bread, Pfd. B	47½	41	47½	47½
Canadian Bakeries	11¼	8⅛	9	8¼
Canadian Food Products	6.00	3.00	3.60	3.50
Canadian Food Products, A	17½	9	13	9
Canadian Food Products, Pfd.	75	61	70½	75
Catelli Food	45	20½	45	45
Consolidated Bakeries	9⅛	8	8½	8½
Federal Grain, A	10⅝	8	10½	11¼
Federal Grain, Pfd.	125	115	122	122
General Bakeries	3.00	2.25	2.85	2.85
Maple Leaf Milling	10⅛	6⅝	9	9½
Ogilvie Flour	21½	19⅝	20½	20¼
Ogilvie Flour, Pfd.	173	160	160	160
Purity Flour	8⅞	6½	7⅝	6½
Purity Flour, Pfd.	48½	40⅝	47	47
Toronto Elevators	18⅝	9⅛	16	16
George Weston	28	20	25½	25½
George Weston, 4½% Pfd.	101	100	100½	101¼
Woods Manufacturing, Pfd.	30	25	30	25

Closing bid and asked prices on stocks not traded:

	Bid	Asked
Lake of the Woods	24½	25
St. Lawrence Flour	15	16
St. Lawrence Flour, Pfd.		141

BAE Says Short Crops May Delay Seasonal Wheat Price Adjustment

WASHINGTON—The adjustment of wheat prices to new crop conditions may be delayed this year because of the short crops in Texas and Oklahoma, the Bureau of Agricultural Economics points out in its April Wheat Situation report. The adjustment usually starts after the middle of May.

The course of prices until new wheat moves in volume depends on several factors, according to BAE. One of these has to do with the weather, especially in the dry areas of the Winter Wheat Belt. Under continuing adverse weather conditions, prices could advance to the level at which the Commodity Credit Corp. will sell its surplus stocks.

This selling price as announced for April was the applicable county loan rate for points of production plus 27¢ bu. with appropriate adjustments for protein. Bids at country points in the Southwest already are within a few cents of this level.

The offer by CCC of its large stocks will tend to establish a level above which the cash market is not likely to go, BAE continues. Rains in the dry areas, of course, would have a weakening price effect. The attitude of growers relative to liquidation of loan wheat is important especially until the last of April when loans are terminated.

7@9¢ Above Loan

Cash wheat prices in important terminals April 12, the review continues, were generally 7@9¢ above loan levels. Recent prices at this level or slightly above have not resulted in any marked increase in the movement of wheat into market channels. At Kansas City, No. 2 hard winter at $2.30 was 10¢ above the loan. To equal accrued charges, prices would need to advance to about $2.38. On the other hand, No. 1 hard winter, track at Gulf, recently reached $2.50, representing a margin of about 19¢ over the loan, which was enough to cover accrued charges on wheat in commercial storage. Much of the wheat under purchase agreement as well as farm-stored loan collateral probably has been redeemed, but release of some quantities of loan wheat from commercial storage, on which accrued charges are higher than on farm storage, will be necessary if minimum requirements against old crop supplies are to be met.

On the basis of a report of March 29, farmers had placed 379 million bushels of 1949-crop wheat under loan and purchase agreement. (Redemptions are not reported.) While the 1949 crop was 168 million bushels smaller than the 1948 production, the quantity placed under the price supporting programs was slightly larger than the 368 million bushels from the 1948 crop. The total for the current year consisted of 257 million stored in warehouses, 76 million on farms and 46 million under purchase agreement.

Wheat deliveries to CCC from the current programs together with quantities held from the previous crop and procured by market purchases will result in a large part of the carry-over next July being held by CCC, BAE concludes.

Rains Again Needed to Maintain Reduced Winter Wheat Prospects

KANSAS CITY — Based upon weather conditions and crop developments in recent days, further reductions in the May 1 government wheat estimate are expected by the southwestern trade.

Scattered moisture was received in parts of the Winter Wheat Belt over the past week end, but the dry sections where the crop is in question have had no relief, and the situation was darkened by additional high winds which whipped up dust. The winds were not as strong as in previous weeks, but velocities of 30 to 40 miles an hour were enough to cause soil blowing in western and southern parts of the Southwest.

It was agreed by most authorities that the benefits of the heavy moisture which occurred two weeks ago were by now fairly well dissipated and that new rains are again needed.

The following are summaries of the weekly weather and crop reports from the important southwestern wheat producing states:

Kansas: Wheat crop prospects in the southwestern and central parts of the state were considerably improved by last week's rains. Response of wheat plants to the additional moisture at the present time will determine whether or not a large acreage in the Southwest, apparently severely injured by drouth and insects, will be revived or abandoned. Wheat is making favorable growth in northwestern, south central and eastern areas. In southern and southwestern counties a number of farmers are spraying to control green bugs and red spiders. All western counties have received damage, and the invasion is spreading to other parts of the state.

Oklahoma: While last week's moisture came too late to save abandoned acreage because of dry weather and insect damage, the greatest amounts fell where needed in the western third of the state. Wheat not too far gone will be revived. Deterioration was apparent prior to the rains, but the danger is disappearing with warmer weather and the advent of parasites.

Nebraska: Snow and rain fell in sections of Nebraska last week. Winter wheat made slow progress due to the low temperatures. All wheat has greened up by now, even in northern counties. Practically all of the crop survived the winter, but some wind damage was noted in spots, especially on lighter soil. Wheat in southwestern Nebraska that was damaged slightly through the winter is coming along favorably and made good progress last week.

Texas: Deterioration of wheat in the High Plains area was checked temporarily, but additional rains must come soon to maintain the already meager prospects for the wheat crop in that area. Considerable acreage already has been abandoned and some was plowed out during the past week. Prospects for wheat in the north central counties were improved by the rain.

In a story released by the Associated Press last week, A. W. Erickson, private crop reporter who has been making an extensive check of the southwestern wheat condition in recent weeks, said that the 1950 crop is fast developing into the worst fadeout since 1935.

Specifically, Mr. Erickson said that he has surveyed 20 million acres of the estimated 33 million acres planted in Kansas, Texas, Oklahoma, Colorado and New Mexico, and 13 million acres can be described as a total loss. Green bugs, root rot, drouth and winter kill have been the contributing factors to the crop's decline.

He believes that rains are too late to help the situation in the badly damaged areas. Widespread deterioration due to green bugs was noted by the reporter, primarily in the areas of south and southwestern Kansas, western Oklahoma and Texas. The insects are attacking the good fallows in the Norton, Phillipsburg and Mankato regions of northern Kansas.

Sales Under Wheat Agreement

Importing countries—	Guaranteed purchases	Exporting countries—total sales, 1,000 bu. — United States* Wheat	Flour	Total	Australia†	Canada†	France‡	Total
Austria	11,025	6,555	1,026	7,581				7,584
Belgium	20,209	7,106	16	7,122		4,510		11,632
Bolivia	2,748	404	224	628		256		884
Brazil	13,229					2		2
Ceylon	4,409				4,408			4,408
Costa Rica	1,102		9	9				9
Cuba	7,423	33	1,125	1,158		3,516		4,674
Denmark	1,417	761	149	910		753		1,663
Dom. Republic	735		88	88		552		640
Ecuador	1,102		519	519		571		1,160
Egypt	8,818				3,554	4,025		7,572
El Salvador	404	13	331	344		115		459
Greece	15,726	9,522	682	10,211		1		10,212
Guatemala	367		287	287		131		418
Haiti	1,029		91	91		945		1,036
India	36,747				14,274			14,274
Ireland	19,104	1,288	129	1,417		3,960		5,377
Israel	9,144	741	384	1,125	229	3,502		4,856
Italy	40,414	6,279	1,211	7,490				7,490
Lebanon	3,308		118	118				118
Mexico	9,182	5,283		5,283		558		5,841
Netherlands	25,721	18,290	1,140	19,430	1,581	100	1,470	22,582
New Zealand	4,593				2,743			2,743
Nicaragua	294		213	213		88		301
Norway	7,718	2,486	2,418	4,904	617	3,150		8,671
Panama	810		83	83		257		340
Peru	5,512	3,271		3,271		58		3,328
Philippines	7,293		433	433	3	197		633
Portugal	5,144	4,008	756	4,764	22	188		4,974
Saudi Arabia	1,837	37	298	335	18	226		579
Sweden	2,756				1,008			1,008
Switzerland	8,130					5,434		5,434
U. of S. Africa	11,023				2,800	4,800		7,600
U. K.	177,068	13,317	3,063	16,377	10,538	133,718	1,537	172,186
Venezuela	4,777		515	515		3,944		4,583
Total	456,172	81,375	16,799	100,174	38,177	213,088	3,187	355,437
Guaranteed quantities (exporting countries)				168,593	40,267	263,803	3,320	456,172
Balance				48,419	5,516	51,364	133	101,723

*Sales confirmed by CCC through April [illegible].
†Sales recorded by Wheat Council through April [illegible].
‡Unofficial quantities.

Floods Further Delay Spring Wheat Planting

MINNEAPOLIS—Progress in seeding the spring wheat crop was set back further during the past few days by heavy rains, snow and flood conditions in important sections of the wheat growing area.

Already field work has been delayed about two weeks beyond the usual start of these operations, and the new precipitation will cause further postponement of planting.

Moisture in the form of snow or rain was quite general throughout the territory April 22 and 23, the Occident Elevator Division of Russell-Miller Milling Co. reports. This, of course, will hold up work in the fields for several days, especially in North Dakota where floods and heavy run-off of the snows has left considerable areas still under water, the report comments.

Earlier the Van Dusen Harrington Co. report pointed out that flooding was quite severe in many areas locally and quite general in the northern two thirds of the Red River Valley. Field operations to date have been limited to a very few points in South Dakota and southern Minnesota, the report noted.

Farmers, however, were said to be showing little concern over the lateness of the season. Most producers have adequate power equipment to take care of the field work in a hurry once the fields are ready.

Winter wheat in Montana appears to have come through the winter very well, but there is a very serious infestation of cutworms and damage may be very serious over wide areas, the Occident report comments.

—BREAD IS THE STAFF OF LIFE—

DAVID S. LEVIN HEADS GRAIN SHIPPERS' GROUP

MINNEAPOLIS — David S. Levin, Continental Grain Co., was chosen president of the Minneapolis Grain Shippers Assn. at the recent annual election. F. H. Murrin, Searle Grain Co., was named vice president, and Robert B. McWhite, Russell-Miller Milling Co., secretary.

Elected to the board of directors were Robert B. Parrott, Cargill, Inc.; Daniel T. McLaughlin, Russell-Miller Milling Co.; John T. Henry, Victoria Elevator Co., and John M. Scroggins, Scroggins Grain Co.

—BREAD IS THE STAFF OF LIFE—

MILLING CAPACITY DOWN 186,000 SACKS, MNF SAYS

CHICAGO—The total daily capacity of the flour milling industry has been reduced by 186,000 sacks during the past two years, according to a tabulation made by the Millers National Federation. The total number of mills which have been closed during that period was shown as 118. In December, 1949, the federation published a summary of mill closings and reported that 101 mills, with a total daily capacity of 156,000 sacks, had been closed.

—BREAD IS THE STAFF OF LIFE—

CHINSKI OFFICES MOVED

NEW YORK—The Chinski Trading Corp., after being located for many years in the New York Produce Exchange Building, moved its offices April 24 to 285 Madison Ave., room 1114.

Flour Sales Summaries from Leading Markets

Prices reported in The Northwestern Miller's market reviews are for flour packed in 100-lb. cotton sacks unless otherwise specified. Mill list prices are quoted in the principal manufacturing centers and sales prices in the larger distributing centers. They represent average wholesale levels and do not take into account high or low extremes at which occasional individual sales may have been made. Except as noted, the price situation reported in these columns is that of the day preceding publication.

Southwest

Kansas City: Expansion in sales to several chain bakers and a better volume of small orders and price date of shipment contracts improved flour business in this area last week.

Total business averaged 65% of a six-day week capacity, compared with 56% the preceding week and 50% a year ago. Only about 5% of the sales last week were for export.

A southeastern chain bought 50,000 sacks of flour early in the week and later a national chair booked May requirements. Other sales to chains and independents were in small lots for immediate shipment or were priced on the date of shipment.

Bakery flour quotations were reduced last week due to the sharp increase in millfeed credits. Wheat costs, however, continue to remain near the top of the year's market.

Family flour business was only fair, and specialty flours sold in fair volume, being boosted by some round lot purchases. Family quotations held firm.

Export sales were again limited last week. The only demand out of Europe came from Portugal, which booked 1,100 tons of .7% ash clears. A few small lots of flour have been sold to Costa Rica since that country became eligible for subsidy. The business was based on letters of credit. Otherwise Latin American demand is quiet.

Operations by Kansas City mills were somewhat better last week. Production was 64% of a six-day week capacity, compared with 60% the preceding wek and 67% a year ago.

Quotations, carlots, April 22, Kansas City, cottons: hard winter bakery short patent $5.35@5.60, standard 95% patent $5.20@5.40, straight $5.10@5.30; established brands of family flour $6.25@7.15, first clears $4.25@4.40, second clears $3.85@4.00, 1% ash clears or higher $3.45@3.55; soft wheat short patent $6.75@7.10, straight $5.30@5.40, cake flour $6.25@6.85.

Five mills report domestic business fair, 4 quiet, 8 slow, 5 dull.

Hutchinson: Flour business expanded considerably for mills of this area last week. Buyers were not anticipating needs beyond May, and round lots were not included in the new contracts. Three- and four-carlots came more frequently than single cars have for some time. The trade shows signs of increasing apprehension over the bad crop news, and inquiry was active throughout the week. Mills were inclined to trim prices slightly for prompt delivery bookings because of the high feed market. Directions slowed, and operations barely exceed 50%. Prices were unchanged compared with the previous week. Quotations: Family patent $5.95@6.05; bakers patent $5.30@5.35, standard patent $5.15@5.20, Kansas City basis.

Oklahoma City: Flour prices closed unchanged last week. Quotations, delivered Oklahoma points April 22: Carlots, family short patent $6.10@7.10, standard patent $5.85@6.75; bakers unenriched short patent $5.65@5.90, standard patent $5.40@5.65, straight grade $5.30@5.50. Truck lots 35c higher on all grades.

Omaha: Sales in this region last week centered on small lot bakery flour purchases. Inquiry was very good during the early part of the week, slipping down to little or nothing toward the end of the week. Millers thought some of the inquiry might be curiosity on the part of buyers, who watched the market fall during mid-week. Shipping orders were not received in regular fashion. They were slow. Production averaged 4½ days a week with outstate mills producing less than that. Quotations, Omaha, April 22: Bakers $5.05, family $6.80.

Wichita: Mills operated at 71% of capacity last week, compared with 80% the preceding week. Domestic sales averaged 41%, compared with 37% the previous week and 36% a year ago. No export sales were reported. Shipping directions were only fair. Prices were unchanged to 5c sack lower.

Texas: Demand last week was at about the same moderate rate as for several previous weeks. Sales again amounting to 35% or 40% of capacity, consisting of family and bakers flour in about equal ratio. Practically all business is, and has been for sometime, on a p.d.s. basis. Running time probably averaged four days, same as for some time past. Prices were about unchanged. Quotations April 21: Family extra high patent $6.60@6.90, high patent $6.30@6.60; standard bakers, unenriched, $5.75@5.85; first clears, unenriched, $4.75@4.85, delivered Texas common points.

Salina: Demand for flour last week showed some improvement, with prices practically unchanged. Shipping directions were lagging.

Northwest

Minneapolis: More active inquiry for flour was noted last week, and while the sales volume gained some there was no great change in the over-all business situation. Bakers, having reached very low inventory positions, were seeking enough flour to keep them in operation for a week or two, and one chain bought a fair amount of springs for May requirements.

As wheat costs edged upward stable flour price quotations were maintained by a steadily advancing millfeed market. This advantage in flour quotations was not readily seized by buyers, however, as their policy of hand-to-mouth purchasing continued to govern their actions. Instances of carlot orders, with shipment specified for the same or the next day, were cited by mill sales representatives as an indication of present operating procedures.

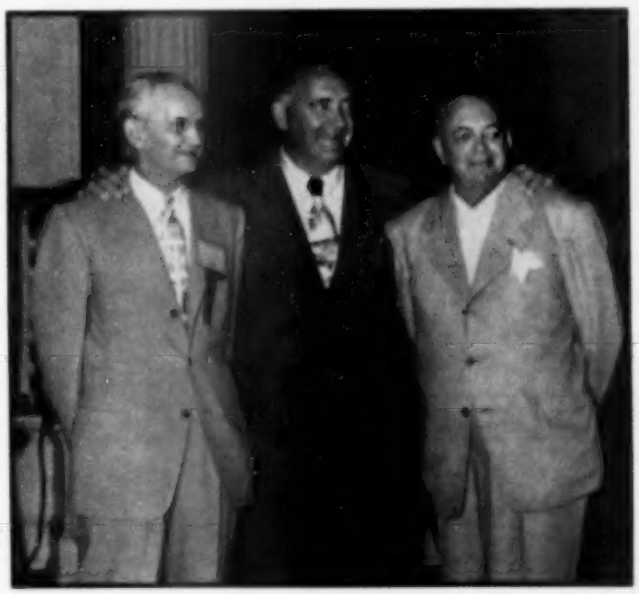
Family flour business was quiet, with directions slightly better last week and practically no new sales. Less than 30 days' needs are reported on the mill's books. Consumer buying, however, is fair, and it is believed that some substantial reordering by distributors will be necessary soon. It was pointed out that tax computations based on May 1 inventories in several states may be contributing to the lack of flour buying now.

Sales by spring wheat mills averaged 59% of capacity last week, compared with 41% the previous week and 51% a year ago. Shipments from mills averaged 84% of capacity, compared with 77% the preceding week. (Percentage figures for this year are based on a five-day week; for last year on a six-day week.)

Production at Minneapolis mills averaged 60% of capacity, compared with 68% a week earlier and 51% in the corresponding week of 1949. For the entire Northwest, production averaged 57% of capacity, compared with 60% the preceding week and 58% a year ago.

Quotations April 24: standard patent $5.55@5.75, short patent $5.75@5.95, high gluten $5.85@6.05, established brands of family flour, enriched $7.20, first clear $5@5.60, whole wheat $5.30@5.50.

Interior Northwest Mills: Reports from mills generally indicated that business was slow last week, although a few said that a pick-up in sales was experienced. Shipping directions also showed considerable variance, ranging from poor to good. Operations last week averaged 56% of capacity, unchanged from the previous week and slightly under the 58% reported a year ago.



IN CHARGE OF SBA AFFAIRS—The officers of the Southern Bakers Assn. elected at the recent annual convention of the group in St. Petersburg are shown above. Left to right, they are: O. C. Jones, Jones Bros. Bakery, Greensboro, N.C., vice president and chairman of the board of governors; Earle P. Coffey, Ambrosia Cake Bakeries, Inc., Jacksonville, Fla., president, and E. F. Cline, Atlanta, secretary-treasurer.

Central West

Chicago: There was a slight improvement in interest last week, but business amounted to mostly single-car purchases for immediate or nearby shipment. However, these were more numerous than in previous weeks. Prices were practically unchanged and are holding firm. Bakers are continuing their hand-to-mouth purchasing and no change in this situation can be foreseen. Directions were slow to fair.

Family flour sales last week were confined to scattered small lots for replacement purposes. No bookings were being made as interest continued to fall off. Deliveries were fair to good.

Quotations April 22: spring top patent $5.60@5.95, standard patent $5.40@5.75, first clear $4.60@5.30; family flour $7.55; hard winter short patent $5.50@5.90, 95% patent $5.25@5.80, first clear $4.75; soft winter short patent $6.15@6.85, standard patent $5.15@6.60, first clear $5.50@5.90.

Toledo: There was little change in the flour sales or milling situations last week, with demand remaining light. Little hope for immediate improvement was held.

St. Louis: Local mills report new sales continue on a narrow scale with most orders for immediate or p.d.s. More interest is being shown in soft

SUMMARY OF FLOUR QUOTATIONS

Week-end flour quotations, in sacks of 100 lb. (Canadian quotations in barrels of 196 lb.) All quotations on basis of carload lots, prompt delivery:

	Chicago	Mpls.	Kans. City	St. Louis	Buffalo
Spring family	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spring top patent	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spring high gluten	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spring short	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spring standard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spring straight	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spring first clear	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hard winter family	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hard winter short	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hard winter standard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hard winter first clear	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Soft winter family	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Soft winter short patent	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Soft winter standard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Soft winter straight	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Soft winter first clear	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rye flour, white	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rye flour, dark	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Semolina, standard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	New York	Phila.	Boston	Pittsburgh	Atlanta
Spring family	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spring high gluten	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spring short	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spring standard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spring first clear	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hard winter short	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hard winter standard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Soft winter family	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Soft winter straight	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Soft winter standard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rye flour, white	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rye flour, dark	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Semolina, standard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	Seattle	Los Angeles
Family patent	[illegible]	[illegible]
Bluestem	[illegible]	[illegible]
Bakery grades	[illegible]	[illegible]
Pastry	[illegible]	[illegible]

	Toronto	*Winnipeg
Spring top patent	[illegible]	[illegible]
Spring second patent	[illegible]	[illegible]
Spring first clear	[illegible]	[illegible]
Spring exports	[illegible]	[illegible]
Ontario soft winters	[illegible]	[illegible]

*In cottons, Fort William basis. [illegible]

UNITED STATES VISIBLE GRAIN SUPPLY

Visible supply of grain in the U.S. as compiled by the secretary of the Chicago Board of Trade in bushels (000's omitted) on April 15, and corresponding date of a year ago:

	Wheat 1950	Wheat 1949	Corn 1950	Corn 1949	Oats 1950	Oats 1949	Rye 1950	Rye 1949	Barley 1950	Barley 1949
Baltimore	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Boston	[illegible]	[illegible]		[illegible]						
Buffalo	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Afloat		[illegible]		[illegible]						
Chicago	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Duluth	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Enid	[illegible]		[illegible]		[illegible]					
Ft. Worth	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Galveston	[illegible]	[illegible]		[illegible]						
Hutchinson	[illegible]	[illegible]					[illegible]	[illegible]		[illegible]
Indianapolis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Kansas City	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Milwaukee	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]
Minneapolis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New Orleans	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
New York	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
Afloat	[illegible]									
Omaha	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Peoria	[illegible]	[illegible]	[illegible]	[illegible]						
Philadelphia	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sioux City	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
St. Joseph	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
St. Louis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wichita	[illegible]	[illegible]							[illegible]	
Lakes				[illegible]						
Totals	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SUMMARY OF MILLFEED QUOTATIONS

Week-end millfeed quotations, compiled from the market reports, are based on carload lots, prompt delivery, per ton, packed in 100-lb. sacks, f.o.b. at indicated points:

	Chicago	Minneapolis	Kansas City	St. Louis	Ft. Worth
Spring bran	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hard winter bran	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Soft winter bran	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Standard midds.*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Flour midds.†	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Red dog	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	Buffalo	Philadelphia	Boston	Pittsburgh	Atlanta
Spring bran	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Standard midds.*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Flour midds.†	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Red dog	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	Spring bran	Shorts	Middlings
Toronto	[illegible]	[illegible]	[illegible]
‡Winnipeg	[illegible]	[illegible]	[illegible]

*Brown shorts. †Gray shorts. ‡Fort William basis.

GRAIN FUTURES—CLOSING PRICES

Closing grain futures quotations in leading markets, in cents per bushel:

WHEAT

	Minneapolis May	Minneapolis July	Minneapolis Sept.	Minneapolis Dec.	Chicago May	Chicago July	Chicago Sept.	Chicago Dec.	Kansas City May	Kansas City July	Kansas City Sept.	Kansas City Dec.
April 17	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April 18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April 19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April 20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April 21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April 22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	CORN Chicago May	CORN Chicago July	RYE Chicago May	RYE Chicago July	RYE Winnipeg May	RYE Winnipeg July	RYE Minneapolis May	RYE Minneapolis July	OATS Chicago May	OATS Chicago July	OATS Minneapolis May	OATS Minneapolis July
April 17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April 18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April 19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April 20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April 21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April 22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

wheat now than formerly, due mainly to the anticipated poor crop of soft wheat in Missouri and Illinois. The demand continues good, at improved prices, for clear flours.

Other central states millers of hard, soft and spring wheat report that business is very draggy. Buyers are maintaining their position of resisting present prices. While they are willing to present resting orders, these remain far enough under the market to prohibit trades. Mill running time is slowing down. Clear prices have firmed to the best levels of the year. There is a good demand for clears of all grades, and mills are keeping sold up to the limit of production. Prices of high grade flours are fairly steady due to large advances in millfeed.

Quotations St. Louis, April 22: family top soft patent $6.25, ordinary $5.40, top hard $6.95, ordinary $5.50; bakers soft winter short patent $6.20, cake $6.20, pastry $5.20, soft straights $5.35, clears $4.40; hard winter short patent $5.60, standard patent $5.40, clears $4.85, spring short patent $5.80, standard $5.60, clear $4.90, low protein clears $4.65.

East

New York: Flour sales continued at a low ebb. In spite of dwindling stocks, buyers avoided volume buying and sales were extremely light not only for future delivery, but even for nearby shipment. Scattered cars, to come out promptly, were sparingly reported, and in one or two instances sales covered a month, but the overall picture was disheartening as one mill representative after another indicated business stagnation.

The advances in spring wheat flours widened the spread between them and the southwesterns, with the result that some good grade Kansas standard patents were sold 20@30¢ below comparable springs.

Soft winters reflected a very slight improvement in small-baker sweet goods sales, but the total volume of all flours was discouraging. One chain baker took about 25,000 sacks of flour and another also purchased a fair amount early in the week. Prices were practically unchanged.

Quotations April 22: Spring family flour $7.85, high glutens $6.30 @6.40, standard patents $5.95@6.10, clears $5.35@5.50; southwestern short patents $6.05@6.30, standard patents $5.75@5.90; high ratio soft winters $6.50@7.25, straights $5.50 @5.80.

Buffalo: Flour prices have been holding within a narrow range. Bakers seem to be waiting for "specials" to cover their nearby needs. At present they are operating their establishments on a conservative hand-to-mouth basis. Family flour sales are only fair. Buffalo mills are greatly in need of more sales to maintain running time.

Quotations April 22, f.o.b. Buffalo: Spring family $7.75@7.85, high gluten $6.20@6.25, standard $5.85@5.90, first clear $5.15@5.25, hard winter standard $5.90@5.95, first clear $5.60@ 5.65, soft winter short patent $5.80 @5.85, straight $5.60@5.65, first clear $4.50@4.55.

Philadelphia: A mild degree of irregularity has appeared in the local flour market. Some observers interpret it as a reflection of uncertainty in the minds of bakers as to the best course to follow in buying. Last week's price changes from the previous week did not follow the customary pattern of uniformity, and variations among individual grades show drops of 5@10¢ sack. The only gainer was spring high gluten. Family flour led soft winter standard and first clear on the downward path, while spring standard patent and short patent underwent lower revisions on the top of their spread. Hard winters held unchanged. Buying was only for nearby needs.

The hand-to-mouth policy is likely to gain more followers, according to mill representatives, since the extended period of buying inertia is reducing supplies, forcing bakers to take replenishment action to maintain production schedules. At least part of the concern is based on the doubtful wheat crop outlook.

There was a report that one of the larger bakeries has been making bids which none of the mills are willing to accept because the potential buyer's idea of price is far from what the miller can offer flour at under current circumstances.

Few foresee any real pickup in activity unless there is a sharp break in the market. A slow decline might find a continuance of the waiting policy.

Bakers are not unduly concerned over the availability of flour in view of the wheat surplus and are restrained from any impulsive action by the knowledge that daily requirements are subnormal as a result of the dragging retail demand for baked goods.

Quotations April 22: spring family $7.20@7.45, high gluten $6.50@6.60, short patent $6.25@6.35, standard $6.15@6.25, first clear $5.60@5.75; hard winter short patent $6.05@6.15, standard $5.95@6.05; soft winter standard $4.85@5.10.

Boston: The local flour market firmed up perceptibly in the late trading last week, although buying continued to be confined to limited lots. Springs showed the greatest strength, advancing from 5 to 10¢ for the week. Hard wheat flours were still on the reactionary side and finished about 5¢ lower. Soft wheat flours are irregular, with the major changes occurring in a slight narrowing of existing price spreads. At the close these lines showed changes ranging from 5¢ lower to 10¢ higher.

Most of the latent strength appeared to be in sentiment rather than based on actual demand. Mill advices were bullish, but the larger buyers still preferred to maintain their conservative policies and entered the market for only their immediate needs.

One large retail outlet conducted a survey of its business, which disclosed that the customer total was comparable with a year ago but the customer purchases were decidedly smaller on the average.

Quotations April 22: Spring short patents $6.27@6.42, standards $6.07@ 6.22, high gluten $6.37@6.52, first clears $5.37@5.62; hard winter short patents $6.12@6.37, standards $5.82 @5.95, Pacific soft wheat flour $6.27 @6.52, eastern soft winter straights $5.52@5.82, high ratio $6.52@7.27; family $7.84@7.87.

Pittsburgh: Flour sales volume in the Pittsburgh and surrounding district increased slightly last week. Prices remained practically the same, and offers made for flour were at a higher price level. Bargain lots of flour were not offered as freely as in several past weeks, and buyers did not enter as many protests against existing quotations.

Hard Kansas bakers patents and spring wheat patents sold in about equal volume. Commitments continued to be made for 30 days at most, with prompt and immediate deliveries more usual. The sale of

family flour showed a decided falling off as jobbers and grocers indicated they were stocked for two weeks to 30 days ahead. Directions are reported good.

Soft winter wheat pastry and cake flours showed larger sales, although the volume remained small. Hand-to-mouth buying was prevalent in these flours to replenish immediate needs for an increased demand for all sweet goods.

Quotations April 22, f.o.b. Pittsburgh points: hard Kansas bakers standard patent $5.76@5.93, medium patent $5.86@5.99, short patent $6@6.20; spring wheat standard patent $6@6.25, medium patent $6.10@6.35, short patent $6.15@6.45, clears $5.25@5.65, high gluten $6.30@6.55; family flour, advertised brands $7.16@7.90, other brands $6@6.95; pastry and cake flours $5.49@6.92, Pacific Coast pastry flour $6.29.

South

New Orleans: Extreme quietness prevailed on flour sales during the past week, with only moderate quantities sold for replacement and balance of month shipment. Some activity was reported on inquiries for immediate shipment, but the price basis was slightly lower than that acceptable by the millers. The greatest percentage of sales was on hard winters, although steady improvement continues on northern springs.

Soft winters from central states and the Pacific Coast met with poor demand, particularly the latter. Cracker and cookie bakers' production is slightly down and they are now limiting flour purchases to replacement or, in a few cases, through May. Shipping directions show a slight decline, with stocks on hand still fairly adequate.

Quotations April 22, carlots, delivered, packed in 100 lb. multiwall papers: Hard winter bakery short patent $5.70@5.85, standard $5.50@5.65, first clear $4.50@4.80; spring wheat bakery short patent $6.05@6.25, standard $5.85@6, first clear $5.30@5.60, high gluten $6.15@6.30; soft wheat short patent $5.75@6.05, straight $5.25@5.55, first clear $4.45@4.75, high ratio cake $6.05@6.45; Pacific Coast cake $6.70@6.85, pastry $6.05@6.20, basis all rail.

Pacific Coast

Seattle: Markets were unchanged during the week, and sales lagged, with ample warehouse stocks on hand to take care of any probable domestic business. Export prospects continued dull. Reports continued to circulate in the trade that some Philippine business may be expected one of these days because buyers in the Islands have been unable so far to get Canadian flour, but just when and how this business may materialize, no one knows. This Philippine business offers the only hope that local millers have for export orders within the foreseeable future. Quotations: Family patent $7.10, bluestem $6.25, bakery $6.19, pastry $6.01.

Portland: Export flour markets opened up a little, with only occasional small sales to the Philippines and the East Indies reported. Canadian flour is working into these areas at lower prices, with which Pacific Northwest mills cannot compete. Philippine bookings continue to be handicapped by licensing, quotas and money troubles. Mills have been working with government officials attempting to secure adequate subsidies in order to work their brands into Oriental markets but without any noticeable effect to date.

Domestic bookings are about normal for this time of the year. They consist of small fill-in orders and deliveries on old contracts.

Flour quotations April 22: high gluten $6.25, all Montana $6.20, fancy hard wheat clears $6.12, bluestem bakers $6.12, cake $6.90, pastry $6.05, whole wheat 100% $5.70, graham $5.60, cracked wheat $5.60.

Canada

Toronto-Montreal: There is little to report in the way of new business. Eastern mills are working principally on shipments to the U.K. Bookings to other sources are scarce and amounts small. Price concessions continue in the domestic market as many mills compete for that business. Quotations April 22: top patent springs for use in Canada $11.15 bbl., seconds $10.65, bakers $10.55, all less cash discounts, in 98's cotton, mixed cars, with 10c added for cartage where used. For export to U.K., government regulation flour $14.05 per 280 lb. to end of April, winter ports; $13.85 to end of June, Montreal.

There is little demand for winter wheat flour. Quotations April 22: $9.80@10.70 bbl., f.o.b. Montreal; export $5.20 per 100-lb. export cottons, f.a.s. Montreal.

There are few deliveries of winter wheat. As a consequence terminal stocks are being depleted. Quotations April 22: $2.10@2.18 bu., f.o.b. shipping point.

Winnipeg: A total of more than 82,500 bbl. Canadian flour was reported worked for export last week, with International Wheat Agreement countries taking 58,400 bbl. of this quantity. Destinations in this category included the Philippines, Costa Rica, Cuba, British West Indies, Dominican Republic and the Belgian Congo. The remainder of the total, 24,000 bbl. went to Class 2 countries, including Tangier, Barbados, St. Lucia, Hong Kong, El Salvador and Venezuela. Domestic trade is moderate, and mills are working at only about 50% of capacity. Supplies are light, and prices remain unchanged. Quotations April 22: top patent springs for delivery between Fort William and the British Columbia boundary $11.20@11.40, cottons; second patents to bakers $10.20@10.40.

Vancouver: Export business from this area continued spotty last week. There was still some interest shown by buyers in the Far East, but actual confirmed sales were comparatively few. The latest moves in the Chinese war further unsettled the situation in that area, and not even Nationalist government buying was in evidence.

The Philippine Islands picture is still unsettled as far as Canadian flour is concerned, although some exporters report a strong latent buying interest there with orders to come forward as soon as permits are secured.

Domestic business continues just average. Prices are unchanged. Quotations: Hard wheat grinds, first patents $11.20 in 98's cottons; bakers patents $9.85 in paper bags and $10.25 in cottons; western cake and pastry flour to the trade $11.20@11.65.

Millfeed

Minneapolis: Millfeed prices gained another $5@6 ton as heavy demand continued to meet reduced supplies. With mill production schedules reduced because of slow flour sales and limited backlogs of orders, nearby supplies of millfeed were very tight. Quotations April 24: bran $57.50, standard midds. $59, flour midds. $60.50, red dog $61.

Paul W. Hodler

D. B. Pratt, Jr.

AACC OFFICE CANDIDATES—Paul W. Hodler, the Kroger Co., Cincinnati, and D. B. Pratt, Jr., B. A. Eckhart Milling Co., Chicago, have been nominated as candidates for the office of treasurer of the American Association of Cereal Chemists. All members of the organization have been mailed ballots and the results of the election will be announced at the AACC annual convention to be held May 15-18, Hotel Sheraton, Chicago.

Kansas City: Demand for both bran and shorts was strong throughout the week and new highs in prices for both articles were reached. By April 24 some of the pressure was off and the market held to a rather steady tone at $54.50@55 for bran and $59@59.75 for shorts. Output in this area continues limited.

Omaha: Increased demand sent quotations higher again last week. Bran sold at $53 and shorts at $58.

Hutchinson: Short output and insistent demand served to create a tight situation last week in the feed market. Mills were usually unable to meet demand from established trade and had few straight cars to offer. Prices were up $4@5 ton. Quotations, Kansas City basis: Bran $52@52.50, gray shorts $57.50@58.

Wichita: Demand for bran and shorts was very strong last week, with supplies inadequate due to low operating time of mills. Quotations, basis Kansas City, April 22: Bran $53@53.50, shorts $58@58.50. Bran advanced $5@5.50 ton and shorts $2@2.50 ton, compared with the preceding week.

Salina: Demand is good, with bran $6 ton higher and shorts $4.50 ton higher. Supplies are inadequate. Quotations, basis Kansas City: bran $51@51.50, gray shorts $56.50@57.

Ft. Worth: April 21, bran $59@60, gray shorts $65@66, $3 higher on bran and $2 up on shorts, compared with the previous week. Current trade demand seems to consistently exceed day-to-day offerings.

Oklahoma City: Quotations on straight cars: Bran $50, millrun $53.50@54.50, shorts $57@58. Mixed or pool cars $1 higher on all classes.

Duluth: Demand continues good, the trend is higher and supplies are adequate. Quotations: Pure bran $56, standard bran $55, standard midds. $58, flour midds $58.50, mixed feeds $58, red dog $59.

Buffalo: A large advance in millfeed prices occurred last week, with demand far exceeding supply. The trade feels that bran and standard middlings are crowding the top and that some decline is in order if mill operations should pick up, thus increasing the supply. Quotations April 22, f.o.b. Buffalo: Bran $58@58.50, standard midds. $60@60.50, flour midds. $60@61, red dog $61@61.50.

Boston: Millfeed experienced one of the sharpest increases in recent years in the local market last week, with advances ranging from $6.50 to $7 ton. Spring bran advanced $6.50 while middlings, mixed feeds and red dog all advanced $7. With each successive daily rise, buyers were inclined to retrench further, and at the close of the week's trading activity was practically at a standstill. Most business was confined to small fill-in lots for immediate needs. Quotations April 22: Spring bran $66.50@67, midds. $67@68, mixed feeds $67.50, red dog $70@71.

Pittsburgh: Continued cold weather and a sharp price advance in grains and millfeeds proved a buying incentive here all last week. Offerings covered all needs, and both retail and wholesale buyers purchased on a liberal scale. Quotations f.o.b. Pittsburgh points: Bran $63@64.60, standard midds. $64@67.10, flour midds. $67@68.10, red dog $68.10@69.10.

Philadelphia: The local millfeed market has taken on a strong undertone in a series of price advances which have lifted quotations to new highs for the year. The strength first showed itself in standard bran but soon spread to other grades. Dealers attribute the development to a report the government might buy feed and to the contracting supply because of smaller output at mills. The April 22 quotation on standard bran of $65 is $6 above the previous week. Standard midds. also at $65, are up $5, with red dog rising $5 to $61.

Chicago: Bran $59.50@60, standard midds. $63.50, flour midds. $63.50, red dog $63. Demand fair, supplies light.

St. Louis: The millfeed market is very strong, with demand good. Supplies are very limited, almost unavailable. Bran $55.75@56, gray shorts $61@61.50, St. Louis.

Toledo: Millfeed was steady last week at $57 for bran and $58 for

John T. McCarthy Elected to Fill ABA President's Post

John T. McCarthy

CHICAGO — John T. McCarthy, Jersey Bread Co., Toledo, Ohio, prominently known in the baking industry and government circles for 35 years, has been elected president of the American Bakers Assn., it has been announced by M. Lee Marshall, Continental Baking Co., New York, chairman of the ABA.

Mr. McCarthy, who served as president of the association from 1943 through 1946 and is a member of its board of governors, succeeds Eugene K. Quigg, who died last March 31.

He is president and treasurer of the Jersey Bread Co., and president of the Sandusky (Ohio) Baking Co.

The highest award given to civilians, the emblem for "exceptionally meritorious civilian service," was bestowed upon Mr. McCarthy, who was a $1-a-year-man in Washington during the war. He went to Washington in 1941, became chief of the bread and bakery products section of the food division of the War Production Board, presiding officer of the baking industry advisory committee and a member of the subsistence division of the Quartermaster Corps. He is now serving as consultant to the Secretary of Defense.

Born in 1890, in Fall River, Mass., Mr. McCarthy attended Pratt Institute, New York, majoring in chemistry. In 1915 he joined the baking industry with the Sanitary Bread Co., Minneapolis. When the company consolidated with the Purity Baking Co., St. Paul, Minn., in 1916, Mr. McCarthy became secretary of the new firm—the Flower State Baking Co.

In 1924, after the company had reverted to its original name of the Purity Baking Co., Mr. McCarthy became secretary-treasurer, and in 1928, he became vice president and treasurer. In 1933, he became president of Cushman's Sons, Inc., a subsidiary of the Purity company. He left this post in 1935, purchased the Jersey Co., and later purchased the Sandusky Co.

Mr. McCarthy is a member of the bakers clubs of Chicago and New York.

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flour midds., quick or prompt shipment in sacks, f.o.b. mill.

New Orleans: Millfeed prices are doing nothing to stimulate sales, and inquiries are quite limited. Quantities of Argentine bran at considerably lower prices have been booked for delivery into May. Feed mixers and jobbers are finding offerings scarce and tight and display much hesitancy in getting into the market. No export business is reported. Bran $62.55@63.55, shorts $67.55@68.05.

Seattle: The millfeed situation tightened considerably last week as flour mills continued to operate at a reduced rate. One of the large local producers had to step into the market to cover some of his commitments. There was heavy pressure on close-by material, and the market moved up from $49, delivered common transit points, to $51. Millfeed is still considered a good value, and until flour production in the area improves a bit, there does not seem to be much chance of a decline in this market. Quotations: $51@52 delivered common transit points.

Ogden: Millfeed prices advanced $2 during last week with demand exceeding supply and conditions tight. Plants are operating six days a week and are booked almost through May. Quotations: Red bran and millrun $49, midds. $52. To Denver: Red bran and millrun $56, midds. $59. To California: Red bran and millrun $56.50, midds. $59.50, f.o.b. San Francisco and Los Angeles.

Toronto-Montreal: The market is strong. Supplies are limited. Quotations April 22: bran $64, shorts $65, middlings $67, net cash terms, bags included, mixed or straight cars, Toronto-Montreal.

Vancouver: Domestic demand continues well below the average of previous years with no indication of much improvement. The light demand is mainly due to continued high prices for millfeed in comparison with other types of feed. A further reduction in sales to poultry farmers has resulted from an outbreak of Newcastle disease among lower mainland poultry flocks, necessitating the destruction of more than 50,000 birds so far in an effort to halt the disease. Cash car quotations: Bran $52, shorts $53, midds. $54.

Winnipeg: Trade in all types of millfeed is on a moderate scale, with the bulk of supplies from western mills going to eastern Canada. Sales in western Canada are insignificant, and supplies are equal to the demand. Quotations: Manitoba, Saskatchewan and Alberta bran $51, shorts $54, small lots ex-country elevators and warehouses $3 extra.

Rye

Minneapolis: Business remains slack, with prices about 5¢ sack higher. Quotations April 24: pure white rye $4.15@4.35, medium $3.95@4.15, dark $3.40@3.70.

New York: Rye flour sales were poor last week with sales limited to small to moderate amounts. Quotations April 22: Pure white patents $4.60@4.70.

St. Louis: New sales have been only fair, with shipping directions also fair. Pure white $4.75, medium $4.55, dark $4, rye meal $4.25.

Buffalo: Buying on the Buffalo market is generally slow. Prices have remained essentially the same, and local bakeries and wholesale houses hesitate to replenish their dwindling supplies, still hoping for reductions. Quotations April 22, f.o.b. Buffalo: White $4.95@5, dark $4.20@4.45, medium $4.75@4.80.

Philadelphia: The rye flour situation continues much the same. Dealings are almost at a standstill as bakers resist the prevailing quotation. Only hardship purchases prevent a complete absence of activity. The April 22 quotation on rye white of $4.70@4.80 is unchanged from the previous week.

Chicago: Demand for rye flour continues quiet and sales last week were extremely spotty. Directions were only fair. White patent rye $4.25@4.30, medium $4@4.10, dark $3.25@3.70.

Pittsburgh: Rye flour activity was practically at a standstill last week. Interest slackened, and sales were extremely limited. Not much change was noted in prices. Pure white No. 1 $4.65@4.70, medium $4.35@4.50, dark $3.90@3.95, blended $5.60@5.76, rye meal $4.15@4.20.

Oatmeal

Toronto-Montreal: The market is weak. Quotations April 22: rolled oats in 80-lb. cottons $5.50, oatmeal in 98-lb. cottons $6.35, f.o.b. Toronto or Montreal.

Winnipeg: Rolled oats and oatmeal trade has slackened due to the advent of warmer weather. Small amounts have been reported sold for export. Supplies are sufficient to take care of all buying orders. Quotations April 22: rolled oats in 80-lb. sacks $4.85@4.95 in the three prairie provinces; oatmeal in 98-lb. sacks $5.85@5.95.

Minneapolis: Bulk rolled oats were quoted at $5.49 April 24; 20-oz. packages $3.10, 48-oz. packages $3.35.

DEATHS

George A. Wittman, 86, operator of the Glenwood Mills in Rochester, N.Y., with his son, **Joseph L.**, until his retirement, died recently. Born in Munich, Germany, of a long line of flour millers, he emigrated to Rochester 70 years ago and operated flour and feed mills there for 55 years. He is survived by his son and six daughters.

BAKERS CLUB, INC., HOLDS FIRST GOLF TOURNAMENT

NEW YORK—The Bakers Club, Inc., opened its 1950 outdoor season with a golf tournament and dinner meeting at the Garden City Country Club. About 60 participated in the golf and 80 were present for dinner.

Prize winners included J. J. Bennett, National Yeast Corp., and R. A. Broadwell, in Class A; J. F. Corder, Fabricon Products of Conn., Inc., and C. S. Brykczynski, George F. Stuhmer & Co., in Class B. Kickers' prize was won by William P. Lyle, Jr., Nashua Gummed & Coated Paper Co.

The next outdoor meeting will be held at the Baltusrol Golf Club, Springfield, N.J., May 9.

WANT ADS

Advertisements in this department are 10¢ per word; minimum charge, $2. Add 20¢ per insertion for forwarding of replies if keyed to office of publication. (Count six words for signature.) Situation Wanted advertisements will be accepted for 5¢ per word, $1 minimum. Add 20¢ per insertion for keyed replies. Display Want Ads $6 per inch per insertion. All Want Ads cash with order.

HELP WANTED

LONG ESTABLISHED SPRING WHEAT mill wants experienced salesman with proven sales record for New England territory. Liberal salary and bonus arrangement makes this very attractive proposition for the right man. All replies confidential. Address 748, The Northwestern Miller, Minneapolis 2, Minn.

WANTED — CORN MILLER FOR LARGE, new, modern corn mill located on eastern seaboard. Fine opportunity for man who has had experience in degerminating plants and can produce. Must be able to handle men. Salary open. Contact J. Carter immediately c/o E. H. Beer & Co., Inc., Canton Plant, [illegible] Ave. & Oldham St., Baltimore 24, Md.

SITUATIONS WANTED

POSITION—AT ONCE AS MILLER IN ANY size mill up to 500 bbl. or second in larger. Married, age [illegible]. Over [illegible] years' experience. P. E. Harmon, Livingston, Mont.

WANTED—POSITION AS SUPERINTENDent or head miller. Thoroughly experienced in the manufacture of cake and other special soft wheat flour as well as spring and hard winter flour. Capable of drawing, installation, etc. Best references. Address 794, The Northwestern Miller, Minneapolis 2, Minn.

MACHINERY FOR SALE

FOR SALE—A 100 H.P. MOTOR, TOGETHer with a Rockwood pulley, head drive pulley, [illegible] ft. of [illegible] in. double thickness leather belt and [illegible]. Three phase motor, [illegible] direct. Above equipment in good condition; priced to sell. Ottawa Milling Co., Ottawa, Iowa.

FOR SALE

Bargain, complete Diesel Power Plant for cheap and emergency power, consisting of 100 and 75 K.W.; 3 ph.; 60 cy.; 2,300 v. units, Fairbanks Morse Modern Unit; engineering service available.
Diesel, 521 K of P Bldg.
Tel. Lincoln 4067 Indianapolis, Ind.

MACHINERY WANTED

WANTED TO BUY — RICHARDSON scales, bag closing machines and other good mill, feed and elevator equipment. J. E. Hagan, 1522 E. High, Jefferson City, Mo.

FOR SALE: STAINLESS STEEL SIFTERS, Our Price $850.00 Each, New Price $2,091.00 Each. 17—No. 71 "Roball" Sifters, made by J. H. Day Co., Cincinnati, Ohio. Single deck, screening surface 40" x 84". Fitted with stainless steel sieve frame, stainless steel 1/8" mesh wire cloth, and S/S feed and discharge hoppers. Each sifter with 2 H.P. Model 5K General Electric 225-A3211 motor, 1750 RPM, 3/60/220 volts Type K ball-bearing, frame 225, totally enclosed, fan cooled. Shipping weight 2250 lb. each, including motor. Located in Newark, N. J.

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SALINA, KANSAS

Cuban Flour Imports Off Sharply

HAVANA—Cuban imports of U.S. flour in February declined to about one fourth of the January total, according to figures compiled by P. E. Carr, import-export statistician. Cuba imported 46,164 200-lb. sacks in February, compared with 193,971 in January. The February total also was well below the amount imported in 1949. However, the two-month total was not greatly below the figure for the same period a year ago because of the relatively high imports in January, 1950. Details are showin in the following table:

CUBAN IMPORTS OF UNITED STATES FLOUR BY MONTHS (200-LB. SACKS)

	1943	1944	1947	1948	1949	1950
January	315,414	35,893	273,255	135,472	149,958	193,971
February	248,140	161,098	107,805	71,232	136,056	146,164
Bimonthly	563,554	196,978	435,618	206,704	276,714	340,035
March	195,711	326,442	74,224	109,305	120,870	.....
April	127,873	134,900	135,282	96,113	114,703	.....
May	134,733	131,148	130,112	90,126	137,814	.....
June	326,733	135,393	242,899	121,420	136,183	.....
July	339,536	133,742	183,422	191,992	186,198	.....
August	233,296	145,434	140,008	114,283	117,139	.....
September	261,435	35,035	136,851	134,653	118,494	.....
October	5,188	16,514	86,735	112,494	75,195	.....
November	7,787	226,655	136,742	88,323	175,424	.....
December	25,848	294,539	146,249	115,491	146,353	.....
Totals	2,305,738	1,726,424	1,938,431	1,391,492	1,573,593	.....

Bemis, Tenn., Ready for Golden Anniversary Celebration May 20

BEMIS, TENN.—Plans are nearing completion for this community's golden anniversary celebration May 20. It was 50 years ago that Judson Moss Bemis, founder of what is now known as Bemis Bro. Bag Co., and a pioneer in the bag manufacturing industry, decided to build a cotton mill in this Tennessee community to supply bag materials for his company's other plants over the country. Numbering six at that time Bemis Bro. Bag Co. now operates 31 different plants in 29 cities.

Here in Bemis the Bemis cotton mill, operating on a three-shift basis and employing approximately 1,250 people, annually manufactures 50 million yards of cotton cloth and one million pounds of thread from 25,000 bales of cotton.

The anniversary celebration will be dedicated to the people of Bemis here and throughout the company's organization. A company-wide dressmaking contest in which valuable prizes will be awarded to employees and members of their families who make the best dresses from Bemilin, cotton bag material manufactured by the company here and in other plants, is now in full swing with over 2,000 entrants. Local winning dresses from over the U.S. will be sent here for the final judging for national awards May 20. More than 10,000 yards of material have been ordered by contestants.

Open house plant tours will be held the day of the celebration with visitors watching the progress of a bale of cotton from the time it is broken out of the bale until the cloth rolls onto the bolt ready for shipment to other plants. A feature of the day's celebration will be a speech by Gov. Gordon Browning of Tennessee, which will be broadcast over a wide network of radio stations. F. G. Bemis, president of the parent company and Fred J. Young, manager of Bemis Cotton Mill and of this town, and himself a 50-year man with the firm, will also appear on the program.

—BREAD IS THE STAFF OF LIFE—

STANFORD U. TO CONDUCT NUTRITION SHORT COURSE

STANFORD, CAL.—A workshop on nutrition education will be given for the third year this summer at Stanford University.

The workshop, scheduled for Aug. 21-Sept. 1, will again be sponsored by the Sperry Division of General Mills, Inc. Dr. Oliver E. Byrd, Stanford professor of health education, will direct the workshop as he has for the past two years.

Emphasis will be given to the integration of nutrition education into the elementary curriculum. The workshop is supported by General Mills as a part of its program of assistance to schools in nutrition and health education. Although the workshop is open to applicants from all fields in education, it will be directed principally to school administrators and health educators.

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"Very Best"
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HIGHER NET REPORTED BY GEORGE WESTON, LTD.

TORONTO—The annual report of George Weston, Ltd., for 1949 shows a net profit of $1,691,049, compared with $1,556,889 for 1948. Principal factors in the improved earnings for 1949 were a "greater stability in raw material prices during the year with some tendency to reduction," the report said. On the outlook for 1950, R. A. Robertson, president, stated the long-range demand for the company's products is good. The rapid increase in population in Canada and the U.S. has created a greatly expanded market and demand in 1950 is expected to consume all the company can produce, he said.

—WHEAT IS THE STAFF OF LIFE—

FREIGHT RATE INCREASE

TORONTO — Canadian shippers have been notified by shipping companies that, effective March 23 freight rates from Montreal (during season of open navigation), Saint John, N.B. and Halifax, N.S., to St. John's, Newfoundland, with some exceptions, will be subjected to various upward revisions, because of the recent 7.4% increase in freight rates granted to railways.

—WHEAT IS THE STAFF OF LIFE—

CUSTOMS DUTIES KILLED

OTTAWA—The Prime Minister of Lebanon has announced the abolition of customs duties on imports of wheat, butter, cheese, cattle, vegetables, cotton and rice into Lebanon from foreign countries. It has also been announced that Lebanon and Syria ended on March 14 the customs union which has been in existence between the two countries for some years.

TRADEMARKS

The following trade-marks have been published in the Official Gazette of the United States Patent Office preliminary to registration. Manufacturers and distributors who feel that they would be damaged by the registration of any of these marks are permitted by law to file, within 30 days after official publication of the marks, a formal notice of opposition.

GIS-NUM-E—Anel Martin's Baked Products, Bronxville, Pa., cake. Use claimed since April 2, 1949.

NOB-BAK—Northshire Bakery, Paterson, N.J., cracker wafers, croutons and chow mein noodles. Use claimed since April 14, 1947.

DIXIANNA DOUGHNUTS — McCrory Stores Corp., New York, N.Y., doughnuts. Use claimed since Nov. 15, 1937.

KIDDIE KOOKIES—P. M. Food Products Co., Milwaukee, Wis., assignor to Kiddie Kookies Co., Fairwater, Wis., cookies. Use claimed since Nov. 14, 1945.

M. P.—McVitie and Price, Ltd., Edinburgh, Scotland, biscuits.

TAR HEEL—Waldensian Bakeries, Inc., Valdese, N.C., bread. Use claimed since May 1, 1932.

WALDENSIAN — Waldensian Bakeries, Inc., Valdese, N.C., bread. Use claimed since May 1, 1932.

CRACKIN' GOOD TREATS—Clare Connell-Dated Biscuit Co., Wilkes-Barre, Pa., crackers. Use claimed since Aug. 5, 1947.

BATTLE CREEK DIET SYSTEM—Battle Creek (Mich.) Food Co., bran biscuit, rice biscuit, soy biscuit, whole wheat wafers and fruit crackers. Use claimed since 1908.

CYTRIC—Joe Lowe Corp., New York, N.Y., doughnut drinks. Use claimed since March 1, 1944.

TABLE QUEEN — Spaulding Bakeries, Inc., Binghamton, N.Y., bread. Use claimed since 1944.

STAULLENO—Spaulding Bakeries, Inc., Binghamton, N.Y., bread. Use claimed since Sept. 28, 1947.

WEBBER — Interstate Bakeries Corp., Kansas City, Mo., doing business as Webber Baking Co., Santa Barbara, Los Angeles, San Diego, Long Beach, Glendale, Santa Ana and El Centro, Cal., bread. Use claimed since May 11, 1944.

LOVE CAKES—Paula's Celebrated Lokkuchen, New York, N.Y., "lokkuchen," a bakery product. Use claimed since March 11, 1948.

LOWNA—Edward T. Yorke, doing business as Lowna Products, Linden, N.J., bread. Use claimed since June 11, 1934.

TIP TOP REFRESHANT SHERBET—Ward Baking Co., New York, N.Y., bread. Use claimed since 1924.

WARDS TIP TOP CAKES—Ward Baking Co., New York, N.Y., cake. Use claimed since 1924.

THE WHISTLING OYSTER—The Whistling Oyster, Ipswich, Maine, pastries and breads. Use claimed since June 16, 1932.

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How good can a bakery flour be? You'll know the answer if you bake SUNNY KANSAS. The extra-fine quality of wheat selected for this famous brand is fully reflected in the superb baking results it produces. SUNNY KANSAS will help your bread. . . .
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MONTANA SPRING WHEAT PATENT FLOUR
BLUESTEM—PATENT FLOUR
FINEST SOFT WINTER WHEAT PATENT FLOUR
General Offices Walla Walla, Washington

GRIST OF GRINS

At a busy corner a traffic officer saw an old lady beckon to him. He held up two dozen cars, trucks and taxicabs to get to her side and inquire, "What is it, ma'am?"

The old lady smiled and put her hand on his arm. "Officer," she said in a soft voice, "I just want to tell you that your number is the number of my favorite hymn."

◆ ◆ ◆

Mrs. Dillhoopey had taken her son to a movie called "The Cultural History of Western Civilization" which turned out to be a love story about a burlesque queen and a dope fiend. Half way through Mrs. Dillhoopey turned to her son and said, "I'm sorry I brought you to this movie. It's hardly a show for a young boy like you."

"That's okay, ma," her son consoled her. "Maybe it'll liven up before the end."

◆ ◆ ◆

The original gold diggers were forty-niners, but most of the modern ones are thirty-sixes.

◆ ◆ ◆

An American and a Russian GI were fishing on a river dividing their occupation zones in Germany. As soon as the American cast on his side of the river he hooked a fish, then another and another. Three hours went by and while the American was hauling in fish after fish the Russian got nary a nibble. Finally he could contain himself no longer: "Hey, Joe," he yelled, "how come you catch so many fish and I don't get none?" "Hell, Mac," said the American, "in the Russian zone even the fish are afraid to open their mouths."

◆ ◆ ◆

A man, frantic to locate a place to live, asked a naturalist where he could find a house. The naturalist replied, "House? Boy, you're getting soft. Why don't you live out-of-doors? Let old Mother Nature cover you with a blanket of stars, and have the blue firmament above as a roof?"

"Frankly," said the man, "I had in mind something a bit smaller."

◆ ◆ ◆

Tom: "Y'know, Pat, I'm afraid you'll just never make a good cowboy."

Andy: "First you gotta learn to love it. Why, Pat, did you know that the average cowboy has an ache in his heart for horseback riding?"

Pat: "Well, all I can say is that from where I ache, I must be below average."

◆ ◆ ◆

An ardent golfer was visiting a friend and playing golf at his friend's club. On the first tee, he took his stance, gave a wild swing, and missed completely. "Gosh," he said to his opponent, "it's a good thing I found out early in the game that this course is at least two inches lower than the one I usually play on."

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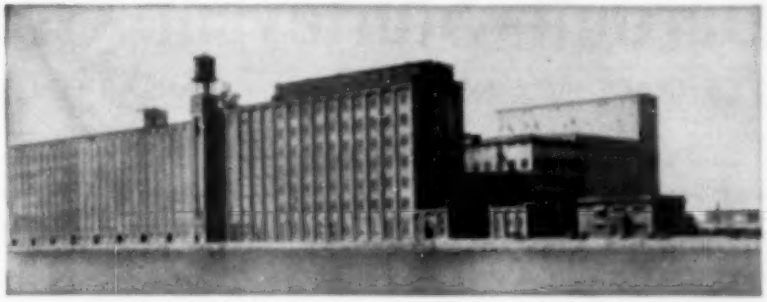

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CONVENTION CALENDAR

April 28-29—Texas Grain & Feed Dealers Assn.; Hotel Galvez, Galveston; sec.-treas., G. E. Blewett, Blewett Little Grain Co., Fair Blvd., Ft. Worth.

April 30-May 2—New England Bakers Assn.; Preston Hotel, Swampscott, Mass.; sec., Robert E. Sullivan, 51 Exeter St., Boston 16.

April 30-May 2—Tri-State Bakers Assn., convention, Jung Hotel, New Orleans, La.; secretary, Sidney Boulier, Jr., 401 Board of Trade Bldg., New Orleans.

May 1-5—Association of Operative Millers, Hotel Jefferson, St. Louis, Mo.; sec., Donald S. Eber, 630 Board of Trade Bldg., Kansas City 6.

May 2-5—Panhandle Grain & Feed Dealers Assn., Herring Hotel, Amarillo, Texas; sec., Joe S. Morris, P.O. Box 366, Amarillo.

May 5-6 — Kansas Grain, Feed & Seed Dealers Assn., Hotel Kansas, Topeka, Kansas; sec., O. E. Case, 823 Wiley Bldg., Hutchinson.

May 7-9—Illinois, Indiana and Wisconsin bakers' associations, joint convention, Sherman Hotel, Chicago; act. sec., Thelma Dallas, 53 W. Jackson Blvd., Rm. 738, Chicago 4.

May 7-8—National Association of Flour Distributors, Hotel Statler, Boston; sec.-treas., Wayne G. Martin, Jr., The Northwestern Miller, 23 Beaver St., New York 4.

May 9-10—Illinois Grain Dealers Assn.; Pere Marquette Hotel, Peoria; sec., E. S. Herron, Gilman.

May 10—Kentucky Master Bakers Assn., and Memphis Master Bakers Assn.; Frankfort, Ky.; sec., Kentucky Master Bakers Assn., M. J. Fleischer, 919 Monmouth St., Newport, Ky.

May 14. — Flour Millers Export Assn.; Edgewater Beach Hotel, Chicago, Ill.; sec., Helen Gervais, National Press Bldg., Washington, D.C.

May 14-16—New York State Assn. of Manufacturing Retail Bakers; Hotel St. George, Brooklyn; sec., Percy Stelle, 2 Broadway, New York 4.

May 15—Des Moines Feed & Grain Club; field day at Des Moines (Iowa) Golf and Country Club; sec., E. G. McGee, Swift & Co., Des Moines.

May 15-17—Millers National Federation; Edgewater Beach Hotel, Chicago, Ill.; sec., Herman Steen, 309 W. Jackson Blvd., Chicago 6.

May 15-19—American Association of Cereal Chemists, Hotel Sheraton, Chicago; sec., Frank R. Schwain, M. A. & E. Bldg., Ivorydale, Cincinnati 17, Ohio.

May 18—American Corn Millers Federation; Drake Hotel, Chicago; sec., Harry Hunter, 105 West Adams St., Chicago, Ill.

May 20-23 — Southwest Bakers Assn.; Herring Hotel, Amarillo, Texas; sec.-treas., J. R. L. Kilgore, Albuquerque, N.M.

May 22-23—Associated Bakers of Minnesota; St. Paul Hotel, St. Paul; sec., J. M. Long, 623 14th Ave. S.E., Minneapolis 14.

May 22-25—Biscuit and Cracker Manufacturers Association of America and Independent Biscuit Manufacturers Co., Inc.; Drake Hotel, Chicago, Ill.; Biscuit & Cracker sec.-treas., R. T. Stokes, 233 Broadway, New York 7; Independent Biscuit sec., Harry D. Butler, 90 W. Broadway, New York 7.

May 25-26—National Soft Wheat Millers Assn.; Hotel Roanoke, Roan-

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June 4-6 — Pennsylvania Bakers Assn., Galen Hall, Wernersville, Pa.; sec., Theo. Staab, 5700 N. Broad St., Philadelphia.

June 4-6 — Rocky Mountain Bakers Assn., Albany Hotel, Denver, Colo.; sec., T. W. Kunde, P. O. Box 5326 TA, Denver 17.

June 4-8—National Association of Retail Grocers; Navy Pier, Chicago; sec.-manager, E. M. Kiefer, 300 N. Michigan Ave., Chicago 1.

June 5-6—Ohio Mill, Grain & Feed Dealers Assn., Deshler Wallick Hotel, Columbus; sec., C. V. Thomas, 44 E. Broad St., Columbus.

June 10-12—Bakers Association of the Carolinas, Ocean-Forest Hotel, Myrtle, S.C.; sec., Louise Skillman, Charlotte, N.C.

June 11-13—Indiana Grain & Feed Dealers Assn., Inc., French Lick Springs Hotel, French Lick, Ind.; sec., Fred K. Salo, 600 Board of Trade Bldg., Indianapolis 4.

June 12-14—Associated Retail Bakers of America, Hotel Wilton, Long Beach, Calif.; exec. sec., Walter M. Jennings, 735 W. Sheridan Rd., Chicago 13.

June 16—Pacific Northwest Grain Dealers Assn., Multnomah Hotel, Portland, Ore.; sec., Pete Stallcop, 647 Peyton Bldg., Spokane 8, Wash.

June 24-25—Montana Master Bakers Assn.; Rainbow Hotel, Great Falls, Mont.; sec., O. P. Preble, Ideal Bakery, 129 S. Main St., Livingston.

June 25-28—Potomac States Bakers Assn., Cavalier Hotel, Virginia Beach, Va.; sec., Emmet Gary, 16 McClellan Place, Baltimore.

June 29-July 1—Grocery Manufacturers of America, Inc.; The Greenbrier, West Sulphur Springs, W. Va.; sec., Talbot O. Freeman, 205 E. 42nd St., New York 17.

Aug. 13-15—West Virginia Bakers Assn.; White Sulphur Springs, West Va.; sec., F. G. Sayre, 123 13th St., Parkersburg.

Aug. 28-30 — American Soybean Assn.; Hotel Leland, Springfield, Ill.; sec.-treas., George M. Strayer, Hudson, Iowa.

Sept. 15-16—Virginia Bakers Council; Natural Bridge Hotel, Natural Bridge, Va.; exec.-sec., Harold K. Wilder, 812 Life Insurance Co. of Virginia Bldg., Richmond, Va.

Sept. 17-19—Southern Bakers Assn., retail and wholesale exposition; Atlanta Municipal Auditorium, Atlanta; sec., E. P. Cline, 703 Henry Grady Bldg., Atlanta 3.

Sept. 24-25—Grain and Feed Dealers National Assn. and Missouri Grain, Feed & Millers Assn., joint convention, Kansas City (Mo.) Municipal Auditorium; headquarters, Grain & Feed Dealers National Assn., Hotel Muehlebach; sec., Don F. Clark, 100 Merchants Exchange Bldg., St. Louis 2; headquarters, Missouri Grain, Feed & Millers Assn., Hotel President; sec., D. A. Meinershagen, Higginsville, Mo.

Oct. 1-3—Kentucky Master Bakers Assn., Inc.; Seelbach Hotel, Louisville, Ky.; sec., M. J. Fickenscher, 919 Monmouth St., Newport, Ky.

Oct. 6-7—Pennsylvania Millers & Feed Dealers Assn., and Nutrition conference at Pennsylvania State College; Hotel Brunswick, Lancaster, Pa.; sec., Jess P. Hampton, 28 E. Orange St., Lancaster.

Oct. 15-18 — American Bakers Assn.; Hotel Sherman, Chicago; sec., Tom Smith, 70 N. Wacker Dr., Chicago 6.

Oct. 30-Nov. 2—National Bakers Supply Home Assn.; Brown-Palace Hotel, Colorado Springs, Colo.; headquarters, 64 East Lake St., Chicago 1.

Nov. 20-21—Western Grain & Feed Assn.; Hotel Fort Des Moines, Des Moines, Iowa; sec., Mark G. Thornburg, 422 Des Moines Bldg., Des Moines 9.

Jan. 21-23, 1951 — Pennsylvania Bakers Assn., William Penn Hotel, Pittsburgh; sec., Theodore Staab, 5700 N. Broad St., Philadelphia.

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Almanack Number

April 25
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Facts & Figures of the Flour, Grain, Feed & Baking Industries

Published by
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Volume 242 In Two Sections—Section Two Number 4

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1950

January						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	●	☾	●	☽

February						
S	M	T	W	T	F	S
			1	2	3	4
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12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	○	☾	●	☽

March						
S	M	T	W	T	F	S
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5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	☽

April						
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●	☾	●	☽			1
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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23/30	24	25	26	27	28	29

May						
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●	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	☾	●	☽

June						
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☾	●	☽	○	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

July						
S	M	T	W	T	F	S
☾	●	☽	●			1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23/30	24/31	25	26	27	28	29

August						
S	M	T	W	T	F	S
☾	●	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	☽	●

September						
S	M	T	W	T	F	S
☾	●	☽	●		1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

October						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	☾	●	☽	●

November						
S	M	T	W	T	F	S
☾	●	☽	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	●	

December						
S	M	T	W	T	F	S
☾	●	☽	●		1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24/31	25	26	27	28	29	30

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INFORMATION on MILLING INDUSTRY

FLOUR production in 1949 totaled 235,719,000 sacks, a precipitous drop of 15.5% from the preceding year when output was listed at 279,133,000 sacks. The 1949 figure is 22.8% below the peak year of 1947 when mills put into operation all available capacity and turned out 305,439,000 sacks.

Principal reasons for the decline: The loss of export markets and a less active domestic demand. In 1947, for example, exports of flour totaled 101,-947,250 sacks. The figure slumped to 75,055,000 sacks in 1948 and 31,587,000 sacks in 1949.

World War II revived in a spectacular manner the export trade of American mills, which began in the colonial era and reached its maximum volume at the opening of the Twentieth Century. In 1903 it amounted to 58,327,800 sacks, but by 1910 it had dropped to 16,405,200 sacks. The peak year of World War I's abnormal movement came in 1919, when exports reached 51,841,179 sacks. After this there was at first a rapid and then a steady decline which persisted until the eve of World War II. The low point of this period between wars was reached in 1935 when exports were only 6,475,800 sacks.

Although the flour output figure for 1949 was 43,414,000 sacks less than in 1948 and 69,780,000 sacks under the 1947 peak, output was the largest for any year up to 1944. Mill operations averaged 66% of capacity, compared with 78% in 1948 and 86% in 1947.

With the decline in demand, considerable mill capacity has been retired. The Millers National Federation reports that 101 mills of 400 sack daily capacity and more were closed in 1948-49. (Mills of less than 400 sacks daily capacity account for only 3% of the national flour output and therefore were not included in the MNF survey.)

These 101 mills in 22 states represent a daily capacity of 156,000 sacks. These mills were producing flour in 1947. More than a third were not in operation at the time of Pearl Harbor. Another third operated at very low rates in the prewar period and could be considered as marginal producers. Had not the abnormal demand for flour developed they most likely would have been retired several years earlier.

Of the 101 plants, 77 with a total daily capacity of 53,000 sacks were chain operated. Ten of the 101 were destroyed by fire and 11 were dismantled.

In 1947 the milling industry had a daily capacity of approximately 1,050,000 to 1,075,000 sacks. With the abandonment of 156,000 sacks, capacity today is figured at 900,000 to 925,-000 sacks daily.

It is therefore concluded that the industry is not very far away from a reasonable balance between capacity and output.

Earnings prospects for the milling industry appear satisfactory. Absence of inventory write-offs should permit favorable profits. Exports are not likely to increase, but domestic demand is expected to show some improvement. Competition, however, has intensified.

Milling costs for the past six years have been increased sharply. In the 10-year period since 1939-40 costs (exclusive of material costs) have jumped 42%. Enrichment costs are not included in the 42% gain.

Packaging and Labeling Laws

Federal and state laws govern the packaging and labeling of flour in the U.S. The state laws conform with federal rules but vary considerably in regulatory detail.

The federal statute governing packaging and labeling of flour is the Food, Drug and Cosmetic Act of 1938, which became effective June 25, 1938. This law superseded the Food and Drugs Act of 1906. It is administered by the Food and Drug Administration, Federal Security Agency, Washington, D. C. The law applies to foods, drugs and cosmetics which move in interstate commerce. The person shipping or offering to ship in interstate commerce has the responsibility of conforming to the law, no matter whose name appears on the goods, unless he is acting in good faith under a guaranty supplied by the person from whom he received the goods.

The federal act prohibits adulteration and misbranding of articles within its scope. Flour is considered to be adulterated if it or its container consists in any degree of a poisonous or deleterious substance, if it contains any filthy, putrid or decomposed substance, if it has been packed or held under unsanitary conditions or if damage or inferiority has been concealed in any manner.

Label Requirements

A general statement of the labeling requirement for food packages is contained in Section 201 (m) of the Food, Drug and Cosmetic Act, which states:

"If an article is alleged to be misbranded because the labeling is misleading, then in determining whether the labeling is misleading there shall be taken into account (among other things) not only representations made or suggested by statement, word, design, device, or any combination thereof, but also the extent to which the labeling fails to reveal facts material in the light of such representations or material with respect to consequences which may result from the use of the article to which the labeling relates under the conditions of use prescribed in the labeling thereof or under such conditions of use as are customary or usual."

Under the federal law the required labeling information must appear on the side or panel displayed under customary conditions of purchase. If any of the required information should appear elsewhere on the package it must be complete and conform to the requirements for the same information appearing on the main label. The label information must not be false or misleading in any particular. The name of the article must be shown as its usual or common name unless a standard of identity has been established, in which case the name in the standard is required. It is therefore necessary that flour packages carry the appropriate name: flour, enriched flour, bromated flour, durum flour, self-rising flour, enriched self-rising flour, phosphated flour, whole wheat flour, bromated whole wheat flour, whole durum wheat flour, crushed wheat, cracked wheat, farina, enriched farina and semolina.

The label must show the true name and address of the manufacturer, packer or distributor. If the name shown is not that of the actual manufacturer it must be preceded by "Manufactured for and Packed by", "Distributed by," or other similar phrase. The address shown may be that of the person's principal place of business in lieu of a branch packing or distributing plant provided the statement is not misleading. The name on the package may be a trade name if it has a legally recognized identity and if the manufacturer has a legal right to its business under it. Completely fictitious trade names and those of no recognized legal standing are forbidden.

Weight on Label

The main label must contain an accurate statement of the contents of the package, and must be in terms generally understood by consumers. It is not necessary to use the terms "net" or "net weight" because the statute requires the weight expressed to be net. The term "net weight when packed" is regarded as misleading and should not be used. Reasonable variations in weight from that stated on the label are permitted if the variations are caused by ordinary and customary exposure to conditions which normally occur in good distribution practice, or if caused by unavoidable deviations in weighing individual packages which occur in good distribution practice. All the packages in a given shipment must average as much as the stated weight for a single package and no unreasonable shortage is permitted even though it may be compensated for by overage in other packages of the same shipment.

Bleached Flour

The word "bleached" must immediately precede or follow the name of the flour, except when the name is part of the trademark or brand. In that case the word "bleached" must be so placed with regard to the trademark or brand as to be conspicuously related to the name.

Under the law a person is exempted from penalties for introducing adulterated or misbranded food into interstate commerce if he establishes a guaranty signed by the person from whom he received the

In this section THE NORTHWESTERN MILLER brings to its readers factual and statistical information about the flour, grain, feed and commercial baking industries. For nearly half a century such information has been made available annually, to the trades served by this journal, through the publication which since 1909 has been known as THE NORTHWESTERN MILLER ALMANACK. To subscribers of THE NORTHWESTERN MILLER the ALMANACK is sent without extra charge. The 1950 edition appears as Section II of THE NORTHWESTERN MILLER of April 25.

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OUR THIRTY

A Roll Call of the Major Operations in Construction

ACME FLOUR MILLS CO., Oklahoma City, Okla.
(1933): 300,000 bushels Storage Bins
(1937): 110,000 bushels Additional Storage

ACME MILLS, Hopkinsville, Ky.
(1937): Warehouse and 1,000-barrel Mill, Designed, Erected and Machinery Installed

ALBERS BROS. MILLING CO.
(1934): Oakland, Cal., 200,000 bushels Concrete Storage
(1934): Seattle, Wash., 150,000 bushels Concrete Storage
(1936): Oakland, Cal., Oatmeal Mill
(1948): Oakland, Cal., 240,000-bushel Elevator

ARKANSAS RICE GROWERS CO-OP. ASSN., Stuttgart, Ark.
(1946): Reinforced Concrete Clean Rice Storage
(1948): 100,000-bushel Rice Storage and Drier
(1949): Clean Rice Storage

ARNOLD MILLING CO., Sterling, Kansas
(1938): 150,000-bushel Concrete Elevator

ATCHISON, TOPEKA & SANTA FE RAILWAY CO.
(1933): Morris, Kansas, Concrete Elevator

ATKINSON MILLING CO., Minneapolis, Minn.
(1938): 500,000 bushels Storage
(1941): Bulk Flour Storage
(1947): Tempering and Cleaning House Addition

BALLARD & BALLARD CO., Louisville, Ky.
(1936): 750,000 bushels Additional Storage

BARTON COUNTY FLOUR MILLS CO., Great Bend, Kan.
(1937): 75,000-bushel Concrete Elevator
(1951): 137,000 bushels Additional Storage

BLAIR MILLING CO., Atchison, Kansas
(1915): Concrete Mill and Elevator

BURLINGTON ELEVATOR CO., Omaha, Neb.
(1938): 400,000-bushel Concrete Elevator

CANADIAN MILL & ELEVATOR CO., El Reno, Okla.
(1933): Concrete Storage
(1935): Reinforced Concrete Flour Mill Building and Wing
(1935): 150,000 bushels Storage

CHICKASHA MILLING CO., Chickasha, Okla.
(1934): 125,000 bushels Storage and Brick Warehouse
(1938): 500-barrel Corn Mill, 300,000-bushel Elevator Office and Warehouse

A. B. CHRISMAN GRAIN CO., Mansfield, Ill.
(1949): 200,000-bushel Elevator

COMMANDER-LARABEE MILLING CO., Minneapolis, Minn.
(1939): 300,000 bus Additional Storage at Sherman, Texas
(1952): 800,000 bus Concrete Storage at Wellington, Kan.
(1944): Reconstruction of Flour Mill After Explosion at North Kansas City, Mo.
(1948): Bulk Flour Storage and Packing Bldg.

CONTIMAR—S. A., Buenos Aires, Argentina
(1947): San Nicolas, Argentina, Corn Mill

CORCORAN MILLING CO., Corcoran, Calif.
(1948): 200,000-bushel Concrete Grain Elevator

CRETE MILLS, Crete, Neb.
(1949): Feed Mill

DES MOINES ELEVATOR & GRAIN CO., Des Moines, Iowa
(1935): 315,000 bushels Additional Storage
(1941): 383,000 bushels Additional Storage

DEWEY PORTLAND CEMENT CO. (7 contracts)
Davenport, Iowa, Reinforced Concrete Stock and Pack House and Cement Storage
Dewey, Okla., Rock Storage
(1948): Dewey, Okla., Rock House

DIXIE PORTLAND FLOUR CO., Higginsville, Mo.
(1934): Concrete Elevator

DIXIE-PORTLAND FLOUR MILLS CO., Richmond, Va.
(1947): 500,000-bushel Grain Elevator

DOBBS FLOUR MILLS, INC., Tulsa, Okla.
(1934): 1,000-barrel Flour Mill and Concrete Elevator

DODGE CITY (KANSAS) TERMINAL ELEVATOR CO.
(1938): 400,000-bushel Concrete Elevator

THE DRACKETT CO., Cincinnati, Ohio
(1948): 1,000,000-bushel Concrete Grain Elevator

EAGLE MILLING CO., Edmond, Okla.
(1935): 150,000-bushel Concrete Storage

EARLY & DANIEL CO., Cincinnati, Ohio
(1938): 1,000,000 bushels Storage
(1941): Reinforced Concrete Feed Mill, Indianapolis, Ind.
(1948): Conversion of Corn Driers, Louisville, Ky.

ENID TERMINAL ELEVATOR CO., Enid, Okla.
(1931): 500,000-bushel Concrete Terminal Elevator
(1937): 400,000 bushels Additional Storage
(1951): 720,000 bushels Additional Storage

FAIR OAKS GRAIN DRYING COOP. ASSN., Fair Oaks, Ark.
(1946): Rice Drier

FANT MILLING CO., Sherman, Texas
(1946): Feed Mill Construction

FARMERS NATIONAL GRAIN CORP., Fremont, Neb.
(1931): 400,000 bushels Additional Storage

FEDERAL MILL, INC., Lockport, N. Y.
(1931): 261,000-bushel Concrete Elevator
(1949): Bulk Flour Storage

FISHER FLOURING MILLS CO., Seattle, Wash.
(1945): Alterations to Feed Plant

FLOUR MILLS OF AMERICA, INC., Kansas City, Mo.
(1945): Fort Scott, Kan., New Headhouse and Elevator
(1947): Fort Scott, Kansas, New Packing Plant
(1947): Great Bend, Kansas, 350,000-bushel Elevator
(1947): North Kansas City, Mo., 4,000-sack Flour Mill Unit and Warehouse
(1947): St. Louis, Mo., 1,000,000-bushel Elevator

GALVESTON WHARF CO., Galveston, Texas
(1928): 4,000,000-bushel Concrete Elevator

GARRISON MILLING CO., Oklahoma City, Okla.
(1931): 250,000 bushels Additional Storage
(1941): 240,000 bus Additional Storage

GENERAL MILLS, INC., Minneapolis (1931 to date)
14 Contracts for 19 Elevators with 3,848,000 bus. capacity, Flour Mills, Feed Mill, Cleaner House, Bulk Storage, Warehouse and Office Buildings

GLOBE GRAIN & MILLING CO., Ogden, Utah
(1939): 750,000 bushels Additional Storage

GOERZ FLOUR MILLS CO., Newton, Kansas
(1929): Concrete Office
(1921): Concrete Warehouse

RAMON GONZALEZ, Nuevo Laredo, Tampa, Mexico
(1928): 200-bbl Reinforced Concrete Flour Mill

GREAT WESTERN SUGAR CO., Ovid, Colo.
(1949): Beet Sugar Storage

HACKER FLOUR MILLS, Jefferson, Okla.
(1934): Rebuilding Flour Mill Building

HARDEMAN-KING CO., Oklahoma City, Okla.
(1934): Feed Mill, Warehouse and Elevator

HICKORY RIDGE GRAIN DRYING COOP. ASSN., Hickory Ridge, Ark.
(1949): Rice Storage

HIRAM WALKER & SONS, INC., Peoria, Illinois
(1944): 1,100,000-bushel Elevator

HONEYMEAD PRODUCTS CO., Cedar Rapids, Iowa
(1949): 300,000-bushel Elevator

HOUSTON MILLING CO., Houston, Texas
(1923): 400,000 bushels Concrete Storage
(1936): 500,000 bushels Additional Storage
(1948): Reconstruction following explosion

HULMEBART BROS., INC., Vincennes, Ind.
(1949): Corn Shelling Plant

INLAND MILLING CO., Des Moines, Iowa
(1928): 125,000 bushels Additional Storage
(1939): 250,000 bushels Additional Storage

INTERNATIONAL MILLING CO., Mpls. (1936 to date)
Eleven Contracts for Nine Elevators and Additions with Storage Capacity of 7,520,000 bushels

JONESBORO GRAIN DRYING COOP. ASSN., Jonesboro, Arkansas
(1948): Rice Drier

KANSAS ELEVATOR CO., Topeka, Kansas
(1948): Remodeling Elevator and Installing Drier

WILLIAM KELLY MILLING CO., Hutchinson, Kansas
(1925): 250,000 bushels Storage Bins
(1927): 250,000 bushels Additional Storage

KIMBELL MILLING CO., Fort Worth, Texas, and Associated Companies (1924 to date)
18 Contracts for 9 Elevators and Additions with 4,125,000 bushels capacity, Fireproof Warehouse

W. J. LAWTHER MILLS, Dallas, Texas (two contracts)
(1924 and 1928): Feed Mill Elevator

H. D. LEE FLOUR MILLS CO., Salina, Kansas
(1923): 300,000-bushel Elevator and Tempering Bins

LEVAL & COMPANY, Minneapolis, Minn.
(1941): 1,440,000-bushel Elevator

McGEHEE GRAIN DRYING COOP. ASSN., McGehee, Ark.
(1946): Rice Drier

MILLER MALTING CO., Los Angeles, Cal.
(1938): 225,000-bushel Elevator and Complete Barley Malting Plant
(1941): 225,000-bushel Elevator
(1944): Addition to Malting Plant
(1947): 100,000-bushel Grain Storage, New Malt House

MILLSTREAM CEREAL COMPANY, Hillsdale Springs, Kan.
(1948): Plans for Corn Meal Mill

M. F. A. COLOP. (GRAIN & FEED) CO., INC., Marion, Mo.
(1941): Reinforced Concrete Grain Elevator and Drier

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JONES - HETTELSATER

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1911 BALTIMORE AVE.

YEAR RECORD ☆ ☆

for the Milling, Grain and Associated Industries

M. F. A. MILLING CO., Aurora, Mo.
(1941) Remodeling Feed Mill
MISSOURI PORTLAND CEMENT CO., Kansas City, Mo.
(1938) Additional Cement Storage
(1940) New Packing Plant
(1941) Additional Plant Improvements
MONTANA FLOUR MILLS CO., Cleveland, Ohio
(1938) 500,000-bushel Concrete Elevator
MOUNTAIN CITY MILL CO., INC., Chattanooga, Tenn.
(1941) 100,000-bushel Elevator
NATIONAL OATS CO., E. St. Louis, Ill.
(1946) 361,000-bushel Reinforced Concrete Elevator
NEBRASKA CONSOLIDATED MILLS CO., Omaha, Neb.
(1938) 350,000-bushel Elevator at Grand Island, Neb.
(1949) Flour Mill Building and Warehouses and 750,000-bushel Elevator at Decatur, Ala.
NORTHWEST LINSEED CO., Minneapolis, Minn.
(1947) 300,000-bushel Grain Storage
WILLIS NORTON CO., Wichita, Kansas
(1938) 600,000-bushels Additional Storage
OKLAHOMA WHEAT POOL ELEV. CORP., Enid, Okla.
(1938) 1,000,000-bushel Concrete Elevator
PACIFIC CO-OP. POULTRY PRODUCERS, Eugene, Oregon
(1945) Reinforced Concrete Feed Mill and Elevator
PARIS MILLING CO., Paris, Texas
(1937) 200,000-bushels Concrete Storage
PEARLSTONE MILL & ELEVATOR CO., Dallas, Texas
(1931) 175,000-bushel Concrete Elevator
(1933) 140,000-bushels Additional Storage
(1938) 300-barrel Corn Meal Mill
(1947) 300,000-bushels Additional Storage
PERMANENTE CORPORATION, Redwood City, Cal.
(1941) Cement Silos
PILLSBURY MILLS, INC., Minneapolis (1933 to date)
7 Elevators, with 6,410,000 bushels capacity, 7 Flour Mills, Cereal Plant, Bulk Flour Storage, Warehouses and Feed Mills
(1946) Ogden, Utah, Remodeling Flour Packing Plant
PONCA CITY MILLING CO., Ponca City, Okla.
(1931) 35,000-bushel Concrete Elevator
(1938) 300,000 bushels Additional Storage
POULTRY PRODUCERS OF CENTRAL CALIFORNIA, Petaluma, Calif.
(1937) 100,000-bu Elevator, Feed Mill and Warehouses
POULTRYMEN'S CO-OPERATIVE ASS'N OF SOUTHERN CALIFORNIA, Los Angeles, Cal.
(1941) 200,000-bushel Elevator
R. G. BALL GRAIN CO., Fort Worth, Texas
(1924) 200,000-bushel Concrete Storage
(1939) 200,000 bushels Additional Storage
RALSTON PURINA CO., St. Louis, Mo. (1924-1949)
12 Elevators or Additions for 3 Feed Mills, 4 Warehouses, 11 Elevators or Additions, with Storage capacity of 3,435,000 bushels, Office Buildings
(1941) Soybean Plant, Iowa Falls
(1944) Remodeling of Certain Structures at Kansas City for Soybean Processing
(1948) Reinforced Concrete Grain Storage and Feed Mill at Wilmington, Del.
(1948) Iowa Falls, Iowa, 400,000-bushel Grain Elevator
(1948) St. Johnsbury, Vermont, New Feed Mill
ROANOKE CITY MILLS, INC., Roanoke, Va.
(1935) 150,000 bushels Storage
(1946) Reinforced Concrete Feed Mill
ROBINET MILLING CO., Kansas City, Mo.
(1931) 261,000 bushels Additional Storage
(1936) 400,000 bushels Additional Storage
RUSSELL MILLING CO., Russell, Kansas
(1933) Tempering Bins and Cleaner House
(1939) 30,000-bushel Concrete Elevator at Bella, Kansas
(1938) 100,000 bushels Additional Storage
RUSSELL-MILLER MILLING CO., Alton, Illinois
(1946) 18,000-sack Flour Mill and 1,000,000-bus Elevator
RUSSELL MILLER MILLING COMPANY, Dallas, Texas
(1947) Flour Storage and Packing Plant
SCHULTE, HAUJAN & CO., Beardstown, Ill.
(1946) Feed Mill
SCOTT COUNTY MILLING CO., Sikeston, Mo.
(1949) 300,000-bushel Elevator
SECURITY ELEVATOR CO., Hutchinson, Kansas
(1931) 200,000 bushels Storage Bins
(1938) 350,000 bushels Additional Storage
(1939) 650,000 bushels Additional Storage
SHAWNEE MILLING CO., Shawnee, Okla.
(1930) 300,000-bushel Concrete Elevator
(1931) 225,000 bushels Additional Storage
(1934) 1,000-barrel Flour Mill
SMALL COMPANY, W. J., INC., Needmha, Kansas
(1944) Brunswick, Mo., Alfalfa Storage & Blending Plant
SOUTHERN ACID & SULPHUR CO., Pasadena, Texas
(1944) Rock and Dust Bins
SOUTHWEST TERMINAL ELEVATOR CO., Enid, Okla.
(1936) 440,000-bushel Reinforced Concrete Terminal Grain Elevator
(1937) 100,000 bushels Additional Storage
SPENCER KELLOGG & SONS, INC., Decatur, Ill.
(1939) 1,000,000 bushels Storage
STANDARD MILLING CO., Kansas City, Kansas
(1947) Flour Storage and Packing Plant
A. E. STALEY MFG. CO., Decatur, Ill.
(1939) 1,000,000 bushels Storage
THEO. STIVERS MILLING CO., Rome, Ga.
(1939) 600-barrel Concrete Flour Mill
SUTTER BASIN GROWERS' CO-OPERATIVE, Knights Landing, Cal. (50,000-barrel Concrete Elevator
TERMINAL GRAIN CORP., Sioux City, Iowa
(1924) 400,000 bushels Additional Storage
(1941) 400,000 bushels Additional Storage
TEX-O-KAN FLOUR MILLS CO. (Dallas) PROPERTIES
(1919 to date) 3 Flour Mills, 3 Elevators of Million bu. Each and One Storage Addition of 300,000 bu.
UNITED MILLS CO., Grafton, Ohio
(1931) 500,000-bushel Concrete Elevator
(1932) 300,000 bushels Storage
UNITED STATES ARMY
(1942-44) Construction at Various Military Installations
UNIVERSAL ATLAS CEMENT CO., Waco, Texas
(1934) Concrete Storage
V-O MILLING CO., Los Angeles, Cal.
(1933) 500,000-bushel Concrete Elevator, Warehouses and 400-barrel Flour Mill
(1937) Concrete Flour Storage, Blending Plant and Grain Storage
WALL-ROGALSKY MILLING CO., McPherson, Kansas
(1939) 150,000 bushels Additional Storage
WALNUT CREEK MILLING CO., Great Bend, Kansas
(1932) 250,000-bushel Concrete Elevator
WASHINGTON CO-OPERATIVE FARMERS ASSN., Tacoma, Wash.
(1947) Feed Mill
WEINER GRAIN DRYING COOP. ASSN., Weiner, Ark.
(1946) Rice Drier
WESTERN TERMINAL ELEVATOR CO., Hutchinson, Kan.
(1937) 250,000 bushel Concrete Elevator
(1938) 300,000 bushels Additional Storage
(1939) 600,000 bushels Additional Storage
J. C. WHALEY ELEVATOR, Lubbock, Texas
(1937) 500,000-bu Concrete Elevator and Head House
WHEATLEY GRAIN DRYING COOP. ASSN., Wheatley, Ark.
(1946) Rice Drier
WOLF MILLING CO., Ellinwood, Kansas
(1938) 32,000 bushels Additional Storage
YUKON MILL & GRAIN CO., Yukon, Okla.
(1935) Concrete and Brick Mill Building at Yukon
(1938) 20,000-bushel Concrete Elevator at Banner, Okla.

1949

Allied Mills, Inc., Taylorville, Ill. 650,000-bu. Grain Storage
Anheuser-Busch, Inc., St. Louis, Mo. Feed Loadout Building, Malt Storage and Other Engineering Work
Austin-Heaton Company, Durham, N. C. Grain Elevator
Bay State Milling Co., Winona, Minn. Bag Conveying System and Flour Bins
Cargill, Inc., Norris City, Ill., Mesta, Texas. Grain Unloading Facilities.
Commander-Larabee Milling Co., Clinton, Mo. Flour Bins
Instituto de Fomento de la Produccion, Guatemala City, Guatemala. Plans for Terminal Elevator
International Milling Co., Salina, Kansas. Warehouse Plans
International Milling Co., North Kansas City, Mo. Warehouse and Office Plans
Kimbell Milling Co., Fort Worth, Texas. 1,000,000-bu. Grain Storage
Mississippi Glass Co., St. Louis, Mo. Bins for Raw Materials
Pillsbury Mills, Inc., Lima, Ohio. 500,000-bu. Grain Storage
Pittsburgh Plate Glass Co., Crystal City, Mo. Bins for Raw Materials
Port of Boston Authority, Hoosac Pier, Charlestown, Mass. Improvements to Port Elevator
Western Cottonoil Co., Abilene, Texas. Feed Mill Remodeling

CONCERNS ABOUT OUR WORK

CONSTRUCTION COMPANY

COMPANIES)

KANSAS CITY 8, MO.

food is good faith, to the effect that the article is not adulterated or misbranded within the meaning of the act. There are two types of guaranty permitted: (1) covering a specific shipment, in which case it may be attached to the invoice or bill of sale, and (2) general and continuing. The label must not contain any representation that the article is guaranteed under the act.

Enriched Flour

Enriched flour conforms to the definitions and standards of identity established by the Food and Drug Administration, Federal Security Agency (see page 22) and is subject to the requirements for label statement of optional ingredients. Flour and bread standards are interrelated in that bread made from enriched flour will meet the enriched bread standard.

Enrichment standards in milligrams per lb., unless otherwise stated, are as follows:

	Flour standard		Bread standard	
Required	Min.	Max.	Min.	Max.
Thiamine	2.0	2.5	1.1	1.4
Riboflavin	1.6	1.6	0.7	1.0
Niacin	16.0	20.0	13.0	15.0
Iron	13.0	16.5	8.0	11.0
Optional				
Calcium	109	131	109	500
Vitamin D	250	1000	150	750
USP units				

Label statements for enriched flour as recommended by the Millers National Federation, are:

"Eight ounces of enriched flour supply not less than the following proportions of the minimum daily requirements of thiamine 100%, riboflavin 20%, iron 15% and 4 mg. of niacin." Thiamine, riboflavin and niacin are B vitamins.

The foregoing declaration covers only the four required ingredients in enriched flour. If desired, the miller may add a parenthetical explanation "(another B vitamin)" following the word "niacin."

If either or both of the optional ingredients, vitamin D and calcium, are added to enriched flour, the declaration would read as follows:

"Eight ounces of enriched flour contain not less than the following proportions of the minimum daily requirements of vitamin B, 100%, riboflavin 20%, vitamin D 31%, iron 15%, calcium 11%, and 4 mg. of niacin."

The federation has recommended the following declaration for enriched self-rising flour:

"Eight ounces of enriched self-rising flour contain not less than the following proportions of the minimum daily requirements of vitamin B, 100%, riboflavin 10%, iron 15%, calcium 50%, and 4 mg of niacin."

If vitamin D is to be added as an optional ingredient to enriched self-rising flour, the percentage declaration would be the same as it is with respect to enriched flour, namely 31%.

Bread Labels

Bread standards are in the process of formulation by the Food and Drug Administration, under the Federal Security Agency, and pending their establishment, labeling regulations are in conformance with the bread standard established by order of the War Food Administration and now incorporated in state and territorial enrichment laws.

The label statement for bread currently recommended by the American Bakery Association and permitted by the Food and Drug Administration, is as follows:

"One half pound of this bread supplies you with at least the following amounts or percentages of your minimum daily requirement for these essential food substances: thiamine (Vitamin B_1) 33%; riboflavin (Vitamin B_2) 17.5%; niacin (another "B" vitamin) 1 milligrams; iron 15%.

"However, if it slices actually weigh one half pound, it is held permissible and desirable to place a previously recommended reference to "1 slices" in the dietary statement.

The same label statement is proper for enriched white rolls and buns except that the following change should be made. The words "this bread" should be deleted and "these rolls" substituted; the statement would then read "one half pound of these rolls supplies, etc. . . ."

Unless the word "enriched" is used on the label of rolls or buns it is not necessary to use a dietary statement. But should the word "enriched" appear any place on the label other than in the list of ingredients, the dietary statement is required.

These label requirements apply only to those bakery products which move in interstate commerce.

Details of label requirements for wheat flour products and mixtures are contained in "Definitions and Standards for Food," obtainable from the Food and Drug Administration, Federal Security Agency, Washington 25, D. C.

Prepared Mixes

In prepared flour mixes, it is not necessary to show the amounts of each ingredient in the mix, but the ingredients should be listed in a descending order of the amounts of each ingredient. All ingredients should be noted on the label, except as permitted in the standard of identity.

Enrichment Premix Standard

A schedule of recommended levels of enrichment ingredients in premixes has been specified by the technical committee of the Millers National Federation. The levels provide a safety factor to insure compliance with government standards for enriched flour.

The recommended levels to be added to each pound of natural flour are: 1.9 mgs thiamine, 1.11 mgs riboflavin, 13.7 mgs niacin, 12 mgs iron. These amounts when added to the amounts in flour should in all cases bring the product up to the minimum standard for enriched flour.

Manufacturers of commercial premixes have been informed of these recommendations and assurance has been given that premixes conforming to these specifications will be made available to millers. These premixes should be added to the flour stream at the rate recommended by the manufacturer and feeders should be adjusted carefully so that bake and watchful theory, the federation points out.

The technical committee recommends addition of a uniform amount of the premix to all grades of flour, except that in the rare cases where clears and stuffed straights are treated special rates of addition may be calculated provided the 10% safety factor is observed. It is possible that in some cases short patent flour may require a slight addition to the standard rate of feeding but such instances can be determined by analysis.

State Enrichment Laws

When War Food Administration Order No. 1 was rescinded, Oct. 18, 1946, enrichment remained in effect voluntary support except in those states, which, anticipating this event, had passed laws calling for compulsory enrichment. At the beginning of 1947, 29 states and the territories of Hawaii and Puerto Rico had such laws, the states being: Alabama, Arkansas, Colorado, Georgia, Indiana, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Mississippi, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Rhode Island, South Carolina, South Dakota, Texas, Washington, West Virginia and Wyoming. Kentucky's law will not become effective until six months after the ending of "the national emergency" as the state laws refer (mostly those of WWII). The required enrichment ingredients are given on this page. The statutes uniformly exempt flour ground for toll, or flour sold to bakers, distributors and other merchants prior to the sale to ultimate purchaser of the sell is accompanied by a certificate from the purchaser of intent to enrich.

Most of the laws include a provision similar to the following: "In the event of an existing shortage or threatened shortage of any required ingredient, with the result that the sale and distribution of flour and bread may be substantially impeded by the enforcement of the statute, an order will be made effective immediately permitting the omission of such ingredients from flour and bread."

Used Flour Sack Regulations

The following 11 states have regulations which prohibit the use of secondhand bags in the packaging and sale of flour: Arizona, Colorado, Illinois, Kansas, Michigan, Nebraska, New Jersey, North Carolina, Ohio, Iowa, South Carolina, Texas and Washington. Georgia prohibits the use of secondhand bags for packaging and sale of flour except that mills may ship in transits in used bags, bags provided each bag has been well laundered, mended and are sanitary and that the flourers use only new bags after flourers or flour and manufacturers may pack flour for their own use in such containers which are well laundered and sanitary. Several states permit the use of secondhand sacks in packaging flour provided they are properly laundered and sanitary. These states are: Alabama, Indiana, Iowa, Louisiana, Maryland, Minnesota, Mississippi, New York, North Dakota, Tennessee and Wisconsin. The remaining 31 states and the District of Columbia have no regulations prohibiting the use of secondhand containers.

QUALITY

"For Over Fifty Years"

King's No. 1 Semolina

Imperial Durum Granular

Imperial Durum Flour

H. H. King Flour Mills Co.

Minneapolis, Minnesota

State Flour Packaging Laws and Regulations

ALABAMA

Legal sizes limited to packages of less than 1 lb. and packages of 5, 10, 25, 50, 100 and 100 lb. Regulations follow federal practice regarding variations. Flour may be sold retail in any quantity from bulk stock by merchants or sold in containers of more than 100 lb. to commercial bakers and blenders, or for export. Label must state net weight and name and address of manufacturer or person responsible for placing the article on the market. Information must be "plainly and conspicuously" marked on outside of package with ingredients given by their common names. Bleached flour must be so labeled. Supervising authority: Dept. of Agriculture and Industries, Montgomery.

ARIZONA

Any size package legal if net weight is correctly shown. Label must state net weight and name and address of manufacturer, jobber or seller. Information, "in clear and distinct English words in legible type" must include grade or class of product. Shrinkage allowance of 1½% permitted in flour. Supervising authority: Department of Weights and Measures, Phoenix.

ARKANSAS

Any size package legal if net weight is correctly shown. Regulations follow federal practice regarding variations. Label must state net weight and name and address of manufacturer, packer or distributor. If name is not that of the actual manufacturer, it must be qualified by "Manufactured for and packed by," "Distributed by," or other "similar phrase." Label must not be false or misleading in any particular and information must be plainly and correctly stated. Bleached flour must be so labeled. Supervising authority: State Board of Health, Little Rock.

CALIFORNIA

Legal package sizes limited to containers of less than 1 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Flour may be sold at retail in any quantity from bulk stock to merchants, or sold in containers of more than 100 lb. to commercial bakers and blenders, or exchanged for wheat to mills grinding for toll, or for export. Label must not be "false or misleading" in any particular. Lettering must be legible and conspicuous with the grade or "class of product included." Label must state net weight and name and address of manufacturer or person responsible for placing the article on the market. If name is not that of actual manufacturer, it must be preceded by "Packed for," "Distributed by," or equivalent phrase. Variations in weight are permitted if due to "unavoidable leakage, shrinkage, evaporation, waste, or causes beyond control of the seller acting in good faith." For mill products having no legal moisture standard the packer is required to make "a reasonable weight allowance" at the time of packing to compensate for evaporation due to shrinkage. Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Sacramento.

COLORADO

Legal package sizes limited to containers of less than 5 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Flour may be sold at retail direct from bulk, or sold in containers of more than 100 lb. to commercial bakers and blenders, or exchanged for wheat to mills grinding for toll, or for export. Label must not be false or misleading in any particular. Required information must be in the English language and when printed, in type not smaller than 8 pt. (heavier capitals). Net weight must be shown with "reasonable allowance for the evaporation due to different atmospheric conditions allowed." Name and address are not required but if given, must be correct and words "Packed by" or "Distributed by" must appear if name is not that of actual manufacturer. Bleached flour must be so labeled. Supervising authority: Food and Drug Division, Department of Public Health, Denver.

CONNECTICUT

Any size package legal if net weight is correctly shown. Label must state net weight and name and address of manufacturer, packer or distributor. If name given is not that of the actual manufacturer, it must be preceded by "Manufactured for and Packed for," or "Distributed by," or equivalent phrase. Regulations authorize tolerance of 12 oz. on 49 lb. sacks and 8 oz. on 24½ lb. Average weight of at least 6 packages must equal weight stated on each. Label must be in the English language and must not be false or misleading in any particular. If any foreign word appears on the label, all required information must be given in the foreign language. Required information must be displayed with sufficient prominence as to render it likely to be read and understood under customary conditions of purchase and use. There are no regulations governing bleached flour. Supervising authority: Commissioner of Food and Drugs, New Haven.

DELAWARE

Any size package legal if net weight is correctly shown. Standards under the Federal Food, Drug and Cosmetic Act must be observed. Label must be plain and conspicuous with net weight stated. Regulations allow reasonable variations. Bleached flour must be so labeled. Supervising authority: State Board of Health, Dover.

DISTRICT OF COLUMBIA

Any size package legal if net weight is correctly shown. Federal requirements govern label, net weight and bleached flour. Supervising authority: Health Department, Government of the District of Columbia, Washington, D. C.

FLORIDA

Legal package sizes limited to cartons of less than 5 lb. and containers of 5, 5, 10, 25, 50 and 100 lb. Limitations do not apply to flour retailed direct from bulk, sold to the bakers trade or exchanged for wheat. Standards become effective 6 months after expiration of National Emergency declared on May 27, 1941. (Until that time a barrel is defined as 196 lb. but any size package is apparently legal if properly marked as to net weight. Label must state net weight and name and address of actual manufacturer or distributor in "clearly legible printing or marking." Variations from stated weight are permitted when caused by ordinary and customary exposure, or when caused by unavoidable deviations which normally occur in good distribution practice. Deviations of this kind in any one shipment must be as often above as below, but no unreasonable shortages are permitted. Label must not be false or misleading with required information prominently displayed. Bleached flour must be so labeled. Supervising authority: State Chemist, Department of Agriculture, Tallahassee.

GEORGIA

Legal package sizes limited to cartons of less than 5 lb. and containers of 5, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed from bulk, sold in containers of more than 100 lb. to commercial bakers or blenders, exchanged for wheat by mills grinding for toll, or for export. Label must state full net weight of contents with the name and address of manufacturer. Letters and figures indicating net contents are required to be in the "same size of type and color as trade or brand name." No provision made for tolerances or variations. Bleached flour must be so labeled. Flour bleached with nitrogen peroxide is considered to be adulterated. Supervising authority: Food and Feed Division, Department of Agriculture, Atlanta.

IDAHO

Legal package sizes limited to cartons or bags of packages of less than 5 lb. and containers of 5, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, sold in containers of more than 100 lb. to commercial bakers or blenders, exchanged for wheat by mills grinding for toll, or for export. Label must state net weight. Information must be "false or misleading in any particular," and are required to be in the English language, in legible type not smaller than 8 pt. heavy gothic capitals. Net weight must be stated and either the name of manufacturer and place of manufacture or name and address of packer or dealer. Bleached flour must be so labeled. Supervising authority: Department of Public Health, Boise.

ILLINOIS

Legal package sizes limited to containers of less than 5 lb. and containers of 5, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat by mills grinding for toll, or for export. Label must be printed "plainly and legibly" in English and in type not smaller than 8 pt. heavier capitals, and must include either the name of manufacturer and place of manufacture or name and address of packer or dealer. Names should be "bona-fide" names of individuals or that of a legally incorporated corporation. If any other name is used, the words "Not incorporated" are required. Net weight must be stated on label. Regulations provide for reasonable tolerances. Bleached flour must be so labeled. Supervising authority: Division of Foods and Dairies, Department of Agriculture, 160 N. La Salle, Chicago.

INDIANA

Legal package sizes limited to containers of less than 5 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat by mills grinding for toll, or for export. Label must state net weight with name and address of manufacturer, packer or distributor. If name is not that of actual manufacturer, it must be qualified by "Manufactured and Packed by," "Distributed by," or similar phrase. Tolerances are provided for loss of weight under conditions similar to federal rules. Label must not be false or misleading in any particular. Information must be shown plainly and conspicuously. Any flour which complies with Federal Food, Drug and Cosmetic Act will comply with state requirements. Bleached flour must be so labeled. Supervising authority: Food and Drug Bureau, State Board of Health, Indianapolis.

IOWA

Legal package sizes limited to containers of 5, 5, 10, 25, 50 or 100 lb. Label must state net weight and name and address of manufacturer, dealer or person responsible for contents of package. If name is not that of manufacturer, it must be preceded by "Packed for" or "Distributed by" or equivalent phrase. Information must be printed in English in type not smaller than 8 pt. heavy gothic capitals. Variations of net weight permitted if due to atmospheric conditions or if caused by errors occurring in packing in compliance with good commercial practice." Variations of latter kind must be as often above as below. Bleached flour

U.S. Retail Flour Prices

Note: Average price in leading cities in cents per 10-lb. from 1938 to 1945; per 5 lb. from 1946 on. Source: U.S. Department of Labor.

	1938	1939	1940	1941	1942	1943	1944	1945
Jan.	47.0	44.8	44.2	43.8	43.7	43.4	43.3	
Feb.	46.1	45.1	44.2	43.9	43.8	43.8	43.3	
March	45.9	45.7	44.2	43.9	44.0	43.7	43.3	
April	45.1	45.1	44.2	43.9	44.5	43.6	43.3	
May	46.4	45.2	44.2	43.7	43.6	43.8	43.3	
June	45.3	44.8	44.3	43.8	43.1	44.7	47.7	
July	45.4	44.6	44.4	43.9	43.6	46.1	47.4	
Aug.	45.7	44.6	44.5	43.2	44.0	47.9	47.4	
Sept.	45.1	44.4	44.2	43.4	43.8	47.9	47.5	
Oct.	45.6	44.5	44.1	43.2	43.1	47.8	47.2	
Nov.	45.0	44.2	44.1	43.7	43.9	47.5	48.1	
Dec.	45.4	44.1	44.0	43.3	44.1	47.9	48.5	
Ave.	45.5	44.7	44.2	43.6	43.7	46.6	47.0	

Rye Flour Prices

Note: Average prices of white rye flour, basis carload lots, prompt delivery, per sack. Source: The Northwestern Miller.

	Minneapolis			Chicago		
	1939	1940	1941	1939	1940	1941
Jan.	$3.61	$2.96	$2.59	$3.75	$2.33	$2.74
Feb.	3.14	3.24	3.41	3.18	3.57	3.85
March	3.11	3.07	3.34	3.18	3.76	3.87
April	3.34	3.34	3.39	3.46	3.72	3.79
May	3.33	3.33	3.47	3.41	3.49	3.77
June	3.03	3.24	3.49	3.34	3.36	3.48
July	3.31	3.33	3.58	3.19	3.34	3.18
Aug.	3.18	3.33	3.53	3.19	3.41	3.53
Sept.	3.18	3.33	3.53	3.23	3.48	3.73
Oct.	3.33	3.37	3.53	3.23	3.63	3.77
Nov.	3.23	3.33	3.49	3.15	3.57	3.53
Dec.	3.23	3.73	3.53	3.18	4.34	3.48
	$3.22	$3.18	$3.46	$3.19	$3.41	$3.34

Range of Flour Prices at Principal Centers in U.S.

Note: High and low flour prices by months, basis carload lots, prompt delivery, per sack of 100 lb. **Source: The Northwestern Miller**

	Chicago		Minneapolis		Kansas City	
	Spring		Spring		Hard winter	
1948—	Top Pat.	1st Clear	Std. Pat.	1st Clear	Std. Pat.	1st Clear
January	$6.40@6.60	$5.80@5.85	$6.35@6.45	$4.95@5.10	$5.15@5.35	$3.70@3.85
February	6.35@6.60	5.70@5.85	6.35@6.45	4.95@5.10	5.00@5.20	3.60@3.75
March	6.35@6.60	5.65@5.80	6.20@6.40	4.80@5.00	5.00@5.20	3.45@3.75
April	6.20@6.50	5.65@5.80	6.05@6.40	4.70@5.10	4.90@5.20	3.40@3.75
May	6.10@6.45	4.80@5.45	6.10@6.35	4.60@5.35	4.80@5.20	3.30@3.85
June	6.05@6.40	4.60@5.35	6.05@6.35	4.60@5.35	4.85@5.20	3.40@4.00
July	6.10@6.45	4.60@5.60	6.10@6.50	4.75@5.70	4.75@5.20	3.30@3.90
August	6.25@6.75	4.70@5.35	6.20@6.50	4.80@5.35	4.85@5.20	3.80@3.90
September	6.30@6.85	4.70@5.40	6.40@6.75	5.20@5.75	5.10@5.35	3.90@4.25
October	6.45@7.15	5.10@5.55	6.65@6.85	5.15@5.85	5.15@5.35	3.80@3.95
November	6.60@7.15	5.40@5.67	6.60@6.85	5.40@5.85	5.10@5.35	3.25@3.65
December	6.60@6.85	4.70@5.40	6.45@6.80	4.85@5.50	5.10@5.35	3.00@3.40

	Chicago		Minneapolis		Kansas City	
	Spring		Spring		Hard winter	
1946—	Top Pat.	1st Clear	Std. Pat.	1st Clear	Std. Pat.	1st Clear
January	$7.10@7.45	$6.60@6.95	$6.95@7.40	$6.15@6.50	$6.40@7.05	$5.30@5.80
February	6.30@7.45	5.30@6.70	6.10@7.10	5.20@5.80	5.15@6.45	4.15@5.40
March	6.25@7.05	5.25@5.90	6.00@6.50	5.15@5.55	5.10@5.55	4.00@4.75
April	6.10@6.70	5.10@5.50	5.80@6.25	5.00@5.75	5.10@5.40	4.10@4.75
May	5.80@6.40	5.10@5.25	5.70@6.05	5.40@5.70	5.20@5.65	4.25@4.65
June	5.75@6.35	5.20@5.95	5.75@6.05	5.20@5.80	5.05@5.65	5.20@5.55
July	5.80@6.30	5.60@5.75	5.85@6.00	5.50@5.65	5.05@5.25	5.15@5.55
August	5.85@6.35	5.65@5.75	5.85@6.05	5.50@5.65	5.15@5.35	5.20@5.55
September	5.85@6.35	5.50@5.65	5.85@6.05	5.50@5.65	5.15@5.35	5.20@5.55
October	5.85@6.35	5.40@5.65	5.80@6.05	5.20@5.65	5.10@5.35	5.00@5.55
November	5.85@6.35	5.40@5.65	5.80@6.05	5.20@5.65	5.10@5.35	5.00@5.55
December	5.85@6.35	5.40@5.75	5.85@6.05	5.15@5.75	5.15@5.35	5.00@5.55

	St. Louis		Buffalo		Seattle	
	Soft winter		Spring			
1947—	Short Pat.	1st Clear	Std. Pat.	1st Clear	Fam. Pat.	Bakery
January	$5.35@5.55	$4.90@5.45	$5.80@6.05	$5.60@5.85	$ —@7.00	$5.12@5.35
February	5.15@5.35	5.05@5.35	5.70@6.00	5.60@5.85	6.50@7.00	6.50@6.75
March	5.15@5.35	5.05@5.35	5.70@6.00	5.60@5.85	6.50@7.00	6.50@6.75
April	5.60@5.85	5.05@5.35	5.85@6.05	5.60@5.85	7.00@7.00	5.80@6.15
May	5.60@5.85	5.20@5.60	5.85@6.05	5.60@5.85	—@6.85	5.87@6.05
June	5.70@5.95	5.10@5.60	5.85@6.05	5.60@5.85	5.80@7.20	5.80@6.27
July	5.45@5.95	5.05@5.45	5.85@6.15	5.50@5.85	5.80@7.20	5.15@6.50
August	5.45@5.75	5.05@5.45	5.85@6.05	5.40@5.60	5.80@7.10	5.80@6.20
September	5.55@5.85	5.15@5.35	5.70@5.90	5.35@5.65	5.85@6.85	5.12@6.15
October	5.30@5.60	5.15@5.35	5.80@6.05	5.35@5.65	—@6.85	—@6.25
November	5.30@5.60	5.05@5.35	5.80@6.05	5.35@5.65	—@6.85	6.00@6.75
December	5.15@5.50	5.00@5.35	5.70@5.95	5.30@5.55	6.85@7.00	5.85@6.35

	St. Louis		Buffalo		Seattle	
	Soft winter		Spring			
1948—	Short Pat.	1st Clear	Std. Pat.	1st Clear	Fam. Pat.	Bakery
January	$7.45@8.10	$6.45@6.75	$7.60@8.05	$6.60@6.85	$8.00@8.60	$7.50@8.15
February	6.60@7.75	5.90@6.75	6.55@7.70	5.80@6.65	7.50@8.75	6.35@8.05
March	6.60@7.75	5.90@6.75	6.55@6.85	5.70@6.65	7.10@7.60	6.80@7.25
April	6.70@8.15	5.95@6.15	6.05@6.70	5.70@6.15	7.60@7.60	6.85@6.90
May	6.50@6.75	6.00@6.50	6.20@6.45	5.90@6.15	7.30@7.30	6.77@8.01
June	6.45@6.50	6.00@6.50	6.00@6.20	5.80@5.85	7.20@7.30	6.15@6.65
July	6.20@6.45	5.75@5.85	5.90@6.00	5.60@5.85	6.80@7.10	6.15@6.15
August	6.15@6.50	5.75@5.85	6.05@6.50	5.60@5.85	7.00@7.10	6.15@6.20
September	6.40@6.60	5.85@6.15	6.75@6.85	5.85@6.15	6.80@7.00	6.15@6.15
October	6.40@6.60	5.85@6.30	5.90@6.15	5.20@5.45	6.50@6.80	6.15@6.15
November	6.35@6.70	5.90@6.45	5.90@6.25	5.60@5.75	7.00@7.20	6.15@6.45
December	6.85@6.70	6.60@6.75	5.90@6.25	5.60@5.85	7.00@7.20	6.15@6.75

	St. Louis		Buffalo		Seattle	
	Soft winter		Spring			
1949—	Short Pat.	1st Clear	Std. Pat.	1st Clear	Fam. Pat.	Bakery
January	$6.75@6.95	$6.35@6.75	$6.25@6.45	$5.60@5.85	$ —@6.45	$ —@6.15
February	6.45@6.65	6.45@6.65	6.15@6.40	5.70@6.00	6.45@6.45	6.15@6.45
March	6.80@7.05	5.70@6.65	6.35@7.30	6.20@6.60	—@6.45	7.00@7.75
April	7.00@7.15	6.15@6.65	6.80@7.20	6.35@6.75	—@6.45	—@7.25
May	7.10@7.45	6.15@6.65	6.80@7.05	6.35@6.65	7.15@7.35	7.45@7.75
June	6.80@7.15	6.35@6.55	6.80@6.85	6.35@6.65	7.00@7.35	7.15@7.35
July	6.15@6.95	5.35@6.45	6.70@7.30	6.20@6.65	7.10@7.35	7.35@7.35
August	6.25@6.95	6.05@6.35	6.60@7.05	6.20@6.65	7.00@7.35	7.15@7.35
September	6.70@7.45	5.85@6.15	6.60@7.05	6.20@6.75	7.00@8.05	6.95@7.45
October	7.45@8.25	6.40@7.45	7.70@8.05	6.60@7.05	7.00@8.05	7.45@7.85
November	7.80@7.90	6.85@6.85	7.90@8.20	6.75@6.85	8.10@8.05	8.00@8.25
December	7.60@8.20	6.85@6.70	7.60@8.25	6.70@7.35	—@8.25	7.95@8.25

must be so labeled. Supervising authority: Dairy and Food Division, Department of Agriculture, Des Moines.

KANSAS

Legal package sizes limited to cartons of less than 5 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold for export, or exchanged for wheat by mills grinding for toll, or sold in containers of more than 100 lb. to commercial bakers or blenders. Label must not be "false or misleading" and must be printed in English with required information shown in type not smaller than 8 pt. brevier capitals. Net weight must be "plainly and correctly" stated on outside of package. Name and address of manufacturer need not be given, but if given must be correctly shown on principal label. If name and address are shown and are not those of the actual manufacturer, they must be preceded by "Packed for," "Distributed by" or an equivalent phrase. Bleached flour must be so labeled. This requirement is identical with federal law. Supervising authority: State Board of Health, Topeka.

KENTUCKY

Legal sizes limited to packages of 2, 5, 10, 24, 48, 98 and 196 lb. Limitations do not apply to flour retailed direct from bulk stock to consumer or bakery trade or exchanged for wheat by mills grinding for toll or to any wheat product packed and distributed as a specialty in an identified original package having net contents of 5 lb. or less. Each package must have its net weight and name and address of manufacturer plainly printed or marked on it in letters and figures not less than ⅛ in. high. In 1944, law was amended to take effect six months after the expiration of national emergency as follows: Standard measures of wheat flour must be containers of net avoirdupois weights of 2, 5, 10, 24, 48 and 196 lb. Limitations do not apply to flour retailed direct from manufacturer to consumer, nor to flour sold to bakery trade, nor to exchanging wheat exchanged for flour, nor to flour packed in cartons of 5 lb. or less. Each container must have its net weight, name and address of actual manufacturer printed or plainly marked on it in "letters and figures clearly legible." Bleached flour must be so labeled. Supervising authority: State Department of Health, Frankfort.

LOUISIANA

Any size legal if net weight is correctly shown. Net weight must be shown on label. Regulations follow federal practice with regard to variations. Label must not be "false or misleading" in any particular and information must be "prominently and conspicuously" displayed. It must contain name and place of business of manufacturer, packer, seller or distributor. If name is not that of the actual manufacturer, it must be qualified by "Manufactured for and Packed for," "Packed for," "Distributed by," or other similar phrase, address may be the person's principal place of business or line of branch plant if statement is not misleading. Label for self-rising flour must show in plain capital letters in English the name and domicile of the manufacturer or dealer, the percentage by weight of each leavening ingredient. Leavening ingredients are limited to 1½% of the self-rising flour. Bleached flour must be so labeled. All enriched flour must be labeled "Enriched Flour." Flour manufacturers must register annually with the State Board of Health each product sold in Louisiana. Sample must be supplied on request. Registration fee may not exceed $2.10 for each separate and distinct product, with a maximum of $10 for any one concern. Label specimens must be submitted at time of registration and comply with the Federal Food, Drug and Cosmetic Act in regard to preparation and packaging, will constitute compliance for registration. Supervising authority: State Board of Health, Civil Courts Bldg., New Orleans.

MAINE

Any size package legal if net weight is correctly shown. Label must state net weight. Reasonable variations are permitted. Label must not be false or misleading in any particular with required information plainly and correctly shown. Place of manufacture must be stated. Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Augusta.

MARYLAND

Any size package legal if net weight is correctly shown. Label must state net weight and place of manufacture. Reasonable variations in weight are permitted. Label requirements are same as those in federal law. Bleached flour must be so labeled. Misleading with respect to damage or conceals inferiority is prohibited. Supervising authority: State Department of Health, Baltimore.

MASSACHUSETTS

Legal package sizes limited to containers of less than 5 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat by mills grinding for toll, or for export. Label must state net weight. Reasonable variations are permitted under conditions similar to those in federal regulations. Label must be "plain and conspicuous" type must be large enough to be readily seen and clearly legible under ordinary conditions of purchase. Bleached flour must be so labeled. Enriched flour must be labeled "Enriched Flour." Supervising authority: Division of Standards, Department of Labor and Industries, Boston.

MICHIGAN

Legal package sizes limited to containers of less than 5 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat ground for toll, or for export. Net weight must be shown on principal label in "plain" English words or numerals so that it can be "plainly read." No variations below the stated weight are permitted except those caused

by ordinary and customary exposure after the product has been packaged for market and which normally might occur in good distribution practice." Label must not be false or misleading in any particular. Name and address of manufacturer or distributor must appear on label. Any product containing ground buckwheat or any other cereal product or foreign substance must be distinctly and legibly labeled "Buckwheat Flour Compound" in letters not less than ⅛ in. high. Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Lansing.

MINNESOTA

Legal package sizes limited to containers of less than 1 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat by mills grinding for toll, or for export. Net weight must be "plainly and conspicuously" marked on label. Variations are permitted (1) resulting from errors in weighing which occur in good packing practice (must be so often above as below) and (2) resulting from differences in atmospheric conditions which cause evaporation or absorption of water in ordinary and customary exposure of the packages. Amount of tolerance depends on the facts in each case. Label must not be false or misleading in any particular with required information in English and in type not smaller than 8 pt. brevier type. Name and address of manufacturer, producer, or person responsible for flour must be given. Words "Packed for," "Distributed by" or an equivalent phrase must appear if name is not that of actual manufacturer. Address may be that of the person's principal place of business instead of branch point if statement is not misleading. Mixed flour made from different cereals must bear on the label "names of the ingredients plainly stated in order of their predominance and printed in uniform size type." A product which contains both buckwheat flour and another cereal product must be labeled "compound buckwheat and ..... flour," or "buckwheat and ..... flour mixture." Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Dairy and Food, St. Paul.

MISSISSIPPI

No regulations regarding specific size packages. Label must be "plain and conspicuous" and must not be false or misleading. Net weight must appear on label with name and address of manufacturer. Supervising authority: State Board of Health, Jackson.

MISSOURI

Legal package sizes limited to containers of less than 1 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat by mills grinding for toll, or sold for export. Net weight must be shown on label. Authorities follow federal practice in regard to variations. Label must not be false or misleading with required information "prominently and conspicuously" displayed. Name and place of business of manufacturer, packer or distributor must be given. If name is not that of actual manufacturer, it must be qualified by "Manufactured for and packed by," "Distributed by" or other similar phrase. Label on mixed flour must show kinds of grain in the mixture and name and address of manufacturer. Bleached flour must be so labeled. Requirements will be met if Federal Food, Drug and Cosmetic Act is followed. Supervising authority: Bureau of Food and Drug Inspection, Division of Health, Jefferson City.

MONTANA

Any size package legal if net weight is correctly shown on label. Label must be in "plain, intelligible words and figures" and must meet federal requirements. Supervising authority: Food and Drugs Division, State Board of Health, Helena.

NEBRASKA

Legal package sizes limited to containers of 1 lb. or less and containers of 10, 25, 50, 100 and 100 lb. Rye and whole wheat flour must be sold in packages of less than 5 lb. or 5, 10, 25, 50 or 100 lb. Flour "prepared for special purposes" may be sold in other sized packages. Label must not be "deceiving or misleading" to the purchaser. Net weight must be clearly printed on label with name of manufacturer and place of manufacture. Food packages containing gifts, premiums or prizes are deemed to be misbranded. Bleached flour must be so labeled. Supervising authority: Department of Agriculture and Inspection, Lincoln.

NEVADA

Legal package sizes limited to cartons of less than 1 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers, blenders, or for export, or exchanged for wheat by mills grinding for toll. Label must not be false or misleading in any respect, must bear net weight. Reasonable variations are permitted. Name and place of business of manufacturer must appear on label. If name is not that of actual manufacturer, it must be preceded by "Manufactured for and packed by," "Distributed by" or other equivalent phrase. Bleached flour must be so labeled. Supervising authority: Department of Food and Drug, Public Service Division, University of Nevada, Reno.

NEW HAMPSHIRE

Legal package sizes limited to cartons of less than 1 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lbs. Flour may be sold at retail in any quantity from bulk stock, or sold in containers of more than 100 lb. to commercial bakers and blenders, or for export. Label must state net weight. Regulations authorize "reasonable variations." Name and place of business of manufacturer, packer or distributor must appear on label. Law is identical with Federal Food, Drug and Cosmetic Act. Label must not be false or misleading in any particular. Required information must be displayed with sufficient prominence as to render it likely to be read and understood under customary conditions of purchase and use. Bleached flour must be so labeled. Sale of bleached flour is prohibited if bleaching serves to conceal inferiority. Supervising authority: State Board of Health, Concord.

NEW JERSEY

Any size package legal if net weight is correctly shown on label. Reasonable variations are permitted. Label must not be false or misleading in any particular, with information "plain and conspicuous." Label must show name and address of manufacturer, packer or distributor. Unenriched flour sold to distributors, bakers, or other processors accompanied by a certificate of intent on the part of the purchaser to enrich, must be marked "in a plain and conspicuous manner" with the words, "unenriched flour." Supervising authority: Department of Health, Trenton, also Department of Weights and Measures, Trenton.

NEW MEXICO

Legal package sizes limited to cartons of less than 1 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Label must be in letters ⅛ in. high. Net weight must be stated on package with reasonable tolerances authorized. Bleached flour must be so labeled. Supervising authority: State Department of Public Health, Santa Fe.

NEW YORK

Legal package sizes limited to containers of less than 1 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold to commercial bakers, blenders, or for export, or exchanged for wheat by mills grinding for toll. Net weight must be stated on label. Variations of 2% are allowed. Lettering indicating weight must be at least 1/8 in. on packages of less than 10 lb., at least ¼ in. on packages from 10 to 100 lb. and at least ½ in. high on packages of more than 100 lb. Label must include name and place of business of manufacturer, packer or distributor, and must not be false or misleading in any particular. Required information must be displayed with "sufficient prominence as to render it likely to be read and understood under customary conditions of purchase and use." Bleached flour must be so labeled. It is mandatory that all unenriched flour be labeled "Unenriched."

CORN MEAL

CORN FLOUR
CORN CONES

Made from Corn that's
Vigorously Washed

Made into Meal, then
Gently Roasted

HOMEMAKERS ALL OVER AMERICA know and appreciate the quality of Staley Corn Meal . . . just as commercial users recognize the quality of Staley Corn Flour and Corn Cones. All Staley corn products are made from grain that has been thoroughly washed and cleaned with the most modern equipment.

Staley Milling Company
KANSAS CITY 16, MO.

KNAPPEN MILLING COMPANY

AUGUSTA, MICHIGAN

Michigan Soft Wheat

"Satin White"

and

"Sunlite" Flours

Complete Grain and Feed Service

Supervising authority: Department of Agriculture and Markets, Albany.

NORTH CAROLINA

Legal sizes limited to packages of 1 lb. or less and packages of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk. Net weight must be shown on label. Reasonable variations allowed. Label must show name and place of business of manufacturers, packer or distributor and must not be false or misleading in any particular. Information must be prominently and conspicuously displayed. Bleached flour must be marked "artificially bleached" in letters not smaller than ⅛ in. in size. Each brand of bleached flour must be registered with the Commissioner of Agriculture for which an annual fee of $15 is charged. Supervising authority: State Chemist, Department of Agriculture, Raleigh.

NORTH DAKOTA

Legal package sizes limited to containers of less than 5 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Label must not be deceptive or misleading and must be legible and plainly written or printed. It must contain a "statement giving the approximate or average percentage of each kind of wheat used in the manufacture of flour and the percentage of protein in the flour," in a form subject to the approval of the state food commissioner and chemist. Net weight must be plainly and conspicuously stated on label. Regulations follow federal practice as to information. Name and address of manufacturer, packer, or other person responsible for placing flour on the market must be shown on label. Bleached flour must be so labeled; any bleaching agent may be used for bleaching flour. Supervising authority: State Labor Information Department, Bismarck.

OHIO

Legal package sizes limited to containers of less than 2 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Label must be plain and conspicuous and printed in English and must include name and address of either manufacturer, packer or distributor. Net weight must appear on label. Regulations provide for tolerances. Bleached flour must be so labeled. Supervising authority: Division of Foods and Dairies, Department of Agriculture, Columbus.

OKLAHOMA

Legal package sizes limited to cartons of less than 5 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Net weight must be shown on label. Label must not be false or misleading in any particular. Information must be plainly and correctly stated. Bleached flour must be so labeled. Food manufacturers doing business in Oklahoma must register annually, firm or corporate name and addresses with the state commissioner of health. Fee, $1 due by July 1. Manufacturers who have paid merchant's license fee of $1 per year are exempt. Supervising authority: State Department of Health, Oklahoma City.

OREGON

Legal package sizes limited to containers of 1, 2, 3, 5, 25, 50, 100 and 200 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Net weight must be stated on label. Name and address of manufacturer, packer or distributor must appear on label which must not be false or misleading in any particular. Required information must be conspicuously displayed. Bleached flour must be so labeled. Supervising authority: Division of Foods and Dairies, State Department of Agriculture, Salem.

PENNSYLVANIA

Legal package sizes limited to containers of less than 5 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Required information must be prominently displayed in a plain, conspicuous, legible manner on the main label panel. Net weight must be plainly and conspicuously marked on outside of package. Authorities require word "net" to be used. There is a provision for tolerances, but before tolerances are granted "producers and manufacturers of commodities must make a written application for a tolerance to the department and must furnish written proof that the use value of the commodity will not be affected by the granting of the tolerance." Label must contain name and address of the manufacturer, packer or distributor. Name used must be preceded by "manufactured by," "packed by," "distributed by," or "packed for," as the case may be, or followed by "Manufacturer," "Packer," "Wholesale Dealer," or "Distributor," as the case may be. Dealers and distributors whose names appear on food packages are required to maintain for five years a record of name and address of manufacturer or packer. Fiscal brand goods are also required to carry a code marking which will identify to the wholesaler or distributor the name and address of the manufacturer or packer of any given package. Distributors or wholesalers are required to keep records of these code markings for five years. Bleached flour must be so labeled. Supervising authority: Bureau of Standards and Measures, Department of Internal Affairs, Harrisburg; also Department of Agriculture, Harrisburg.

RHODE ISLAND

Any size package legal if net weight is correctly shown. Net weight must be shown on label; reasonable tolerances are provided for. Federal requirements govern label. Bleached flour must be so labeled. Supervising authority: Division of Food and Drug Control, Department of Health, Providence.

SOUTH CAROLINA

Legal package sizes limited to cartons of less than 5 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Net weight must be "plainly marked" on label. Letters and figures must be at least 1 in. in length. Regulations permit tolerance of ⅛ of 1% on packages of 50 lb. and over, and ¼ of 1% on smaller packages. Label must not be false or misleading in any particular. Information must be "plain and correct." Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Columbia.

SOUTH DAKOTA

Legal package sizes limited to cartons of less than 5 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Net weight must be shown on label. Regulations follow federal practice with regard to variations. Label must contain name and address of manufacturer, packer, wholesaler or other person responsible for placing article on market. If manufacturer produces a food in more than one plant, actual place of manufacture of each package need not be stated on label unless location named is misleading. Label must be "plain and conspicuous." Bleached flour must be so labeled with word "Bleached" printed in capital letters. Supervising authority: Department of Agriculture, Pierre.

TENNESSEE

Legal package sizes limited to containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Buckwheat, wholewheat, pancake, prepared cereal and cake flours may be sold in packages of 5 lb. or less. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Net weight must be shown on label. Reasonable variations are allowed. Label must not be false or misleading in any particular. Required information must be "prominently and conspicuously" displayed. Bleached flour must be so labeled. Supervising authority: Division of Foods, Fertilizers and Dairies, Department of Agriculture, Nashville.

TEXAS

Legal sizes limited to packages of 2, 5, 10, 25, 50, 100, 110 and 200 lb. Specially flours may be packed in any size package of 5 lb. or less. Limitations do not apply to flour retailed direct from bulk, or sold in bakeries for exclusive use in the bakeries or exchanged for wheat by mills grinding for toll. Net weight must be stated on label. Regulations follow federal practice regarding variations. Label must be "printed or plainly marked in letters and figures clearly and readably." Information must be plainly and conspicuously displayed and must not

be false or misleading in any particular. Name of Manufacturer (person, firm, association or corporation which processes the wheat or other cereal into flour) and the name of the place where milled must appear on label. Bleached flour must be so labeled. All manufacturers of food doing business in Texas must register annually by September 1 with the State Health Officer, Austin. Fee, $1. Supervising authority: State Department of Health, Austin; also Division of Weights and Measures, State Department of Agriculture, Austin.

UTAH

Legal package sizes limited to cartons of less than 3 lb. and containers of 3, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or sold for export, or exchanged for wheat by mills grinding for toll. Net weight must be stated on label. "Reasonable variations and tolerance" allowed. Label must not be false or misleading in any particular. Information must be "plain and conspicuous." Bleached flour must be so labeled. Supervising authority: Dairy and Food Division, Department of Agriculture, Salt Lake City.

VERMONT

Any size package legal if net weight is correctly shown. Net weight must be shown on label. There is provision for reasonable tolerances. Label must be plain and conspicuous and must not be false or misleading in any particular. Name and place of business of manufacturer, packer or distributor must appear on label. If name is not that of actual manufacturer, it must be qualified by "Packed for," "Distributed by" or other similar phrase. If label meets federal requirements it is satisfactory. Bleached flour must be so labeled. Supervising authority: State Department of Health, Burlington, and State Department of Agriculture, Montpelier.

VIRGINIA

Legal sizes limited to packages of 3 lb. or less, and packages of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat by mills grinding for toll. Net weight must be shown immediately above or below the principal label. Reasonable variations permitted. Label must not be false or misleading in any particular. Information must be "plain and conspicuous." Label must contain name and place of business of the manufacturer, packer or distributor. Bleached flour must be so labeled. Supervising authority: Division of Dairy and Foods, Department of Agriculture and Immigration, Richmond.

WASHINGTON

Legal package sizes limited to containers of less than 3 lb. and containers of 3, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export or exchanged for wheat by mills grinding for toll. Net weight must be shown on label. Regulations follow federal practice with regard to variations. Label must not be false or misleading in any particular. Required information must be prominently and conspicuously displayed and printed in English. Type size must not be smaller than 8-point (brevier) capitals. Label must contain name and place of business of manufacturer, packer or distributor. Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Olympia.

WEST VIRGINIA

Legal package sizes limited to cartons of less than 3 lb. and containers of 3, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export or exchanged for wheat by mills grinding for toll. Net weight must be stated on label. Reasonable variations or "tolerances" are permitted. Label must be in a conspicuous place in legible type and of sufficient size to be easily read. Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Charleston; also Division of Weights and Measures, Department of Labor, Charleston.

WISCONSIN

Legal package sizes limited to containers of 2, 5, 10, 25, 50, 100 and 200 lb. Specialty cake and pancake making flours may also be packed in containers of less than 2 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export or exchanged for wheat by mills grinding for toll. Net weight must be shown on label. Reasonable tolerance permitted. Information on label must be plain and conspicuous. Name and address of manufacturer, packer or dealer must appear on outside of package. Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Madison.

WYOMING

Any size package legal if net weight is correctly shown. Net weight must be shown on label. Variations permitted within "reasonable limits." Label must be in a conspicuous place and of sufficient size to be readily seen by the purchaser. Name and address of manufacturer or distributor is required to appear on label. Bleached flour must be so labeled. Supervising authority: State Department of Agriculture, Cheyenne.

The Wheat Flour Subsidy Record

Subsidized U.S. flour exports, authorized under the Agricultural Adjustment Act, were approved Feb. 19, 1936. This was the first of a series of subsidies applicable to export flour. It was undertaken, at least in part, for the recovery of markets lost through abnormal world trade conditions.

This initial program covered flour made from Pacific Northwest wheat and was effective only with respect to flour exported to the Philippines. The rate of indemnity was fixed in accordance with a formula which took into consideration the market prices of wheat and flour in the Pacific Northwest and the export prices to the Philippines. The indemnity payment averaged $1.22 bbl., the equivalent of about 26.5¢ bu. for the wheat. The total quantity on which the indemnity was to be paid was limited to 61% of the estimated total imports of flour into the Philippines for the period during which the program was in effect.

On June 29, 1936, a similar plan was put into effect, the rate of payment averaging 24.1¢ bbl., equal to about 13.2¢ bu. of wheat. Total exports subsidized in the fiscal year 1936 were 147,682 bbl., the indemnities amounting to $231,111.

On July 1, 1937, a third program was approved. This one covered the period from July 1, 1937, to June 30, 1938. On Sept. 7, 1938, the subsidy program was broadened to include other areas of origin and other countries of destination. The amount of the subsidy was announced each weekday, except Saturday, at 1 p.m., E.S.T., from the Department of Agriculture in Washington. Beginning at 50¢ bbl., the indemnity ranged in its closing months to $1. The yearly averages were as follows:

(In dollars per barrel)

	Pacific Ports			
	China	Phil.	Americas	Others
1938	.89	.43	..	.27
1939	1.18	1.06	..	1.13
1940	1.24	.91	.86	..
1941	..	.72	1.18	..
1942	..	.86	1.26	..
1943	..	..	1.78	..

	Other U.S. Ports	
	To foreign countries	To Americas
1938	.77	..
1939	1.20	..
1940	..	.86
1941	..	1.18
1942	..	1.35
1943	..	1.78

This subsidy program expired June 30, 1943. Export indemnities were resumed Dec. 1, 1943, under Defense Supplies Corp. Regulation No. 1, which automatically expired June 30, 1946, when the wartime Emergency Price Control Act died through veto of an extension measure passed by Congress. DSC was created by the Reconstruction Finance Corp. Aug. 29, 1940, and operated until July 1, 1945, when it was dissolved and its functions, powers, duties and authority transferred to RFC. DSC subsidy rates were as follows:

(In cents per bushel)

	Outside Pacific area			Pac. area
	Hard wheat	Soft wheat	Durum	All wheat
1943	18	3½	8	14
1944	19	11	17	21
1945	20	20	22	29
1946	22	35	35	39

The AAA program related solely to production for export. DSC's program, undertaken under the authority of the Emergency Price Control Act, was geared to the domestic economy and the payment of the subsidy under this program was considered necessary in order to bring about maximum necessary production of wheat. Under DSC's program the subsidy was paid on production and without reference to whether the wheat was exported or processed in the U.S.

Under the AAA export subsidy program the following fiscal year payments were made by authority of Sec. 32 of Public Law No. 320: 1936, $124,161; 1937, $231,111; 1938, $78,945; 1939, $8,214,732; 1940, $4,428,151; 1941, $3,981,724; 1942, $1,977,438; 1943, $3,819,474; 1944, $1,313,983; 1945, $8,194,742; 1946, $2,743,443.

Under Regulation No. 1 no disbursements were made prior to Jan. 1, 1944, due to the fact that application for payments covered a month's grind and the first claims were submitted for the December, 1943, grind during January, 1944. Under the successor Regulation No. 4, June, 1946, was the last month for which payments were made. The amounts follow: 1944, $88,142,417.27; 1945, $117,176,688.37; 1946, $184,824,441.28. These figures reflect disbursements during the years named and not amounts paid on production during those years. The rates of payment varied from 11¢ for each bushel of hard wheat ground outside the Pacific area in December, 1943, to 41¢, the highest amount recorded, in June, 1946. On soft wheat the range was from 1¢ to 41¢. Pacific Coast subsidies were at a slightly higher rate, ranging from 13¢ to 50½¢.

From 1936 through 1946, all export subsidy money came out of the Sec. 32 till. The Commodity Credit Corp. shows small losses in the fiscal years 1945, 1946 and 1947 on wheat export subsidies but these operations were carried on under Sec. 2(f)(?) of the Surplus Properties Act of 1944.

Section 32 provides that an amount equal to 30% of the gross receipts from customs duties each calendar year shall be made available to the Secretary of Agriculture during each succeeding fiscal year to encourage the exportation or domestic consumption or utilization of American agricultural commodities. Such expenditures totaled $75,658,000 in 1946 and $72,024,000 in 1947.

The wheat and wheat flour subsidy program under the International Wheat Agreement became effective Aug. 1, 1949. For a temporary period the subsidy was paid out of funds under Title 32. Rate announcements under the Sec. 32 program titled "Terms and Conditions of 1949-50 Wheat and Wheat Flour Export Program" were discontinued, and a new offer by the Commodity Credit Corp. to make payments to exporters upon proof of exportation of wheat or wheat flour to eligible countries under the wheat agreement, titled "Terms and Conditions of the Commodity Credit Corp. 1949-50 Wheat and Wheat Flour Export Program," became effective Nov. 1, 1949. The terms and conditions of the new program are essentially the same as under previous program except that export payments are authorized in sales for which payment is made with ECA dollars.

Beginning in August, 1949, the rates of payment for the East Coast ranged from 13@35¢; for the West Coast from 28@51¢; for the Gulf ports to Europe and the Mediterranean 28@58¢; to the Far East 13@41¢; and to Latin America and Mexico 21@55¢.

The monthly averages for rates of payment since August, 1949, follow:

(In cents per bushel)

	East Coast	West Coast	Gulf Coast				
	To all destinations	To all destinations	To European Atlantic ports	To Medit., Middle East, W. & S. Africa	To Asia & adjacent territory	To Latin America	To Mexico
August	18	22	33	29	33	26	
September	16	28	44	42	41	39	37
October	41	37	47	45	39	44	38
November	47	45	50	48	47	41	39
December	51	46	54	52	51	49	49

	East Coast	West Coast	To all Europe	To Far East	To Lat. America and Mexico
January	52	48	52	56	49
Feb. 1-20	51	51	51	53	51
	(1) (2) (3)	(1) (2) (3)	(1) (2) (3)	(1) (2) (3)	(1) (2) (3)
Feb. 21-28*	35 46 39	31 41 72	38 48 50	38 48 37	34 44 25

(1) February-April. (2) May 1-June 10. (3) June 11-July 31.

The CCC Wheat and Flour Export Program

The text of the "Terms and Conditions of Commodity Credit Corp. 1948-49 Wheat and Wheat Flour Export Program" follows:

Chapter IV—Production and Marketing Administration and Commodity Credit Corp., Department of Agriculture.

Subchapter B—Export and Diversion Programs

PART 371—WHEAT

SUBPART A—WHEAT AND WHEAT-FLOUR EXPORT PROGRAM—INTERNATIONAL WHEAT AGREEMENT, TERMS AND CONDITIONS OF COMMODITY CREDIT CORP. 1948-49 WHEAT AND WHEAT FLOUR EXPORT PROGRAM.

Sec.
371.10 General statement.
371.11 Eligibility for payments to the Commodity Credit Corp.
371.12 Confirmation of sale.
371.13 Eligible countries.
371.14 Reports.
371.15 Application for payment.
371.16 Cancellation of sale.
371.17 Records and accounts.
371.18 Set-offs.
371.19 Assignments.
371.20 Good faith.
371.21 Amendment and termination.
371.22 Persons not eligible.
371.23 Delegation.
371.24 Definitions.

AUTHORITY: Sections 371.10 to 371.24 inclusive, issued under Sec. 2, Public Law 471, 81st Congress.

371.10 **General statement.** In order to encourage the sale and exportation by commercial exporters of wheat produced in the U.S. and wheat-flour processed in the U.S. from such wheat and in order to exercise the rights, obtain the benefits and fulfill the obligations of the U.S. under the International Wheat Agreement, the Commodity Credit Corp. (hereinafter referred to as CCC) pursuant to the authority conferred by Sec. 2 of Public Law 471, 81st Congress, offers to make payments to exporters under the terms and conditions stated herein. Information pertaining to the operation of this program and forms prescribed for use thereunder can be obtained From Manager, Commodity Credit Corp., Department of Agriculture, Washington, D. C.

371.11 **Eligibility for payments by the Commodity Credit Corp.** Payments under this program will be made to an exporter in connection with that quantity of wheat or wheat flour exported to an eligible country payment to a sale for which he has received a confirmation by the Manager, CCC (hereinafter referred to as Manager), in accordance with Sec. 371.12, subject to the following additional conditions:

(a) Only bids received into after the date of this offer and not later than June 30, 1949, and during periods in which an announced rate is in effect and which have entered into in reliance thereon, are eligible for payment. In order to receive payment at the announced rate in effect at the time of sale, it is important that the exporter give timely notice of sale as required by Sec. 371.14 (a) and present documentary evidence that the sale was consummated at such time.

(b) Export payment rates will be announced from Washington, D.C., daily or at intervals up to seven days. Announcement of rates will be released at approximately 1 p.m. E.S.T., and will remain in effect until 5 p.m. E.S.T., on the expiration date stated in the announcement, at which time a new announcement will be made. No rates will be announced on Saturday, and rates effective after 5 p.m. on Friday will be considered as in effect until 1 p.m. E.S.T. of the market day succeeding Saturday unless the announcement specifically provides otherwise.

Announcement will be available through a press release, ticker service and through the eight PMA commodity offices at Portland, San Francisco, Minneapolis, Kansas City, Dallas, Chicago, Atlanta and New York. Different rates of payment, based upon export ports or areas, destinations, or other factors, may be announced for the same period. Rates of payment applicable to wheat shall also be applicable to wheat flour converted to wheat on the following basis:

Whole wheat flour—1.67 lbs. per 100 lb. flour.

Patents and straight grade flour (up to 72% extraction)—2.33 lbs. per 100 lb. flour.

Flour clears—2.33 lbs. per 100 lb. flour.

80% extraction flour—2.33 lbs. per 100 lb. flour.

If sales are made at any other extraction rates a conversion basis will be furnished by the manager upon request. The rate in effect at the time of sale or the giving of notice of sale, as required by Sec. 371.14 (a), whichever rate is the lower, shall be the rate applicable to the sale and exportation. The supporting evidence as proof of sale submitted to the exporter, in form prescribed in paragraph 1 of Sec. 371.14 (b), will be the basis for determining that a sale was consummated at a time established substantially as follows:

(1) Date and time of filing by the exporter of a cablegram or other written acceptance of a definite offer to purchase received from the foreign buyer.

(2) Date and time of receipt by the exporter of a cablegram or other written acceptance by the foreign buyer of a definite offer by the exporter to sell.

(3) Date and time of filing by the exporter of a cablegram or other written confirmation of the booking of a shipment or shipments to be made pursuant to an open offer of the exporter to sell or a standing order of the buyer to purchase.

(4) In the absence of documentary evidence that the sale was consummated prior to shipment in accordance with (1), (2) or (3) above, the sale will be deemed to have been made on the date and at the time of issuance of the bill of lading or if none is issued, at the time of clearance through U.S. Customs.

(5) If the time of day at which the sale was consummated is not established and two payment rates are in effect on the day established in accordance with (1), (2), (3) or (4) above, the time of consummation of sale will be deemed to be at the time the lower of the two rates was in effect.

(c) The wheat or wheat-flour must have been exported pursuant to each sale by July 31, 1949, unless an extension of time is granted by the manager.

(d) The exporter must have sold and exported wheat or wheat-flour as defined in Sec. 371.24 to one of the eligible countries named in 371.13.

(e) Deliveries of wheat or wheat-flour under this program shall be made only to the eligible country named in the bills of lade and the Declaration of Sale, and a buyer identified with the Declaration of Sale and supporting evidence of sale (see Sec. 371.24).

(f) Payment will not be made on quantities loaded on vessels or exported by rail or truck in excess of the quantity shown on the Declaration of Sales unless clearance is obtained from the manager, in which case a new Declaration of sale and a new Confirmation of Sale for the additional quantity is required. However, in the case of bulk grain, payment will be made without additional clearances for the loaded quantities do not exceed the quantity shown on the Declaration of Sale by more than one (1) per cent.

(g) The exporter shall submit the reports and documents specified in Sec. 371.14.

(h) Proof of shipment and submission of specified supporting documents must have been made in accordance with Sec. 371.15.

(i) In the event of reentry into the U.S. or its territories or possessions, or in event of a diversion to another country while en route to the eligible country shown as the final destination on the declaration of sale and notice of export, of any quantity of wheat or wheat-flour exported under this program, payment may be withheld, or if payment has already been made the exporter shall make necessary arrangements for refund or other appropriate adjustment with the manager. The exporter shall be required to notify the manager immediately upon becoming cognizant of such reentry or diversion.

371.12 **Confirmation of sale.** Upon receipt of the notice of sale required by Sec. 371.14, the manager shall, if he determines that the transaction is eligible for entry in the records of the wheat council under the provisions of the wheat agreement, confirm the sale by telegram and specify that the transaction, or any part thereof, is eligible for payment upon proof that the conditions set forth in this program have been met. The wheat agreement provides that:

(1) A transaction or part of a transaction in wheat grain between a participating exporting and importing country is eligible for entry in the wheat council's records against guaranteed quantities of those countries for a crop year:

(a) Provided that (I) it is at a price determined to be the equivalent price at port of export to No. 1 Manitoba northern bulk wheat in store Port William-Port Arthur, Canada; not higher than the maximum nor lower than the minimum in effect during the crop year in which the loading period specified in the transaction falls and (II) the exporting and importing country have not agreed that it shall not be entered against their guaranteed quantities, and

(b) To the extent that (I) both the exporting and importing country concerned have unfulfilled guaranteed quantities for the crop year, and (II) that the loading period specified in the transaction falls within that crop year.

(2) If a commercial contract or governmental agreement on the sale and purchase of wheat-flour contains a statement, or if the exporting country and the importing country concerned inform the wheat council that they are agreed that the price of such wheat flour is consistent with the maximum or minimum price in effect during the crop year in which the loading period specified in the transaction falls, the wheat grain equivalent of such wheat flour shall, subject to the conditions prescribed in (a) (II) and (b) above, be entered in the wheat council's records against the guaranteed quantities of those countries. If there is no such statement or agreement as described above, either country involved in the transaction may request the wheat council to decide whether the quantity sold should be entered in its records and the wheat council shall decide whether the price at which the wheat flour was sold justifies the entry of the transaction in the records.

Maximum prices at which wheat grain may be sold under the Wheat Agreement shall be announced from time to time by the manager, CCC. The Wheat Agreement provides that to such prices may be added such carrying charges and marketing costs as may be agreed to between buyer and seller. When such charges are included in the total price in the case of wheat grain sales and such price exceeds the maximum price, they should be reported separately to the manager, CCC. For example, if the maximum price is $1.90 and the total sales price is $1.97 the price should be quoted as $1.87 including $0.03 marketing costs or the carrying charges as the case may be. The Wheat Agreement also provides that premiums and discounts for quality factors may be as agreed between exporting country and importing country. In the case of wheat grains, when such premiums result in a price in excess of the maximum, the premiums shall be shown in the same manner as marketing costs and carrying charges.

The manager will issue, not less often than weekly, a statement as to the progress of purchases and sales by individual importing and exporting countries against their guaranteed quantities. The manager will provide to any exporter upon request with information as to the data available as to the status of sales to and purchases by individual countries under the Wheat Agreement. During certain periods it will be to the exporter's advantage to ascertain from the manager prior to making a sale whether there is a sufficient guaranteed quantity balance to permit recording in the Wheat Council's records.

However, it shall not be the duty or responsibility of the manager to guarantee that a transaction, which appears to the exporter and/or the manager prior to sale to be eligible for recording in the wheat council's records, will be so recorded and a payment made if a rate is in effect. It shall be the responsibility of the exporter to protect himself (for example, by inserting an appropriate provision into his sales contract) against the possibility that the transaction will not be considered eligible for entry into the wheat council's records until he receives the confirmation of sale from the manager.

371.13 **Eligible countries.** An eligible country shall be any one of the following countries, including all territories for the foreign relations of which the government of that country is responsible, unless announcement has been made by the manager, CCC, excepting certain territories:

Austria, Belgium, Bolivia, Brazil, Ceylon, Cuba, Denmark, Dominican Republic, Ecu-

ador, Egypt, El Salvador, Greece, India, Ireland, Israel, Italy, Lebanon, Mexico, Netherlands, New Zealand, Nicaragua, Norway, Panama, Peru, Portugal, Saudi Arabia, Sweden, Switzerland, Union of South Africa, United Kingdom, Venezuela.

The foregoing list may be amended from time to time, but nothing in this subpart shall be deemed to authorize the exportation of wheat or flour in violation of any statute, order or regulation now in existence or hereafter established.

§71.24 **Reports.** No payment will be made under this program unless the exporter submits to the manager reports as follows:

(a) Notice of sale of wheat or wheat flour for export.

(1) Notice of the consummation of a sale of wheat or wheat flour for export shall be given within the time stated in the rate announcement as the final time for filing such notices, unless such time is extended by the manager.

Giving notice of sale, and issuance of confirmation, shall be deemed to be the exporter's agreement with the CCC to export the quantity of wheat or wheat flour stated in the notice. The order in which transactions are received assumes importance during the latter part of a crop year when guaranteed quantities are near to being filled. Notices of sale should normally be filed by telegraph, or by telephone. Telephone notices should be confirmed immediately by telegraph.

If notice is not given by telephone, and the exporter desires to take advantage of the current rate of payment, the telegram reporting sale must be filed before 3 p.m., E.S.T., on the expiration date shown in the announcement.

(2) In giving notice of sale the exporter must report the following information:

(a) Date and time of sale.
(b) Contract quantity:
a. Wheat in bushels.
b. Wheat flour in net pounds.
(c) Sale price, in case of wheat. In case of flour, certificating that buyer and seller agree that the transaction comes within the terms of the wheat agreement. This may be reported by the code word "Akord."
(d) Importing country.
(1) Assigning of numbers. Each transaction which is deemed by the Manager eligible for entry into the wheat council's records shall be assigned a number immediately upon receipt of notice of sale by the manager which shall be called the FMA sales number. This number shall be entered on the copy of the declaration of sale (see (b) below) which is returned to the exporter, and shall thereafter be used on all documents, including notice of export and voucher form FCA 144, and in all correspondence with reference to the transaction.

(b) Declaration of sale and evidence of sale.

(1) The exporter should prepare a declaration of sale (Wheat Agreement Form No. 1) and mail it (normally by airmail) to the manager within 24 hours after consummation of sale.

(2) The declaration of sale must be submitted in quadruplicate, the original and three copies of which shall be signed in an original signature by the exporter or his authorized representative and forwarded to the manager. One copy of the declaration of sale will be acknowledged and returned to the exporter.

(3) All sales made to any one eligible country during any 24-hour period ending at 3 p.m., E.S.T., may be reported on one declaration of sale. All information requested on the face of Wheat Agreement Form No. 1, declaration of sale, shall be entered. The information required is as follows:

(a) Date and time of sale.
(b) Name of purchaser.
(c) Country of final destination.
(d) Delivery period specified in contract.
(e) Quantity sold:
(1) Wheat in bushels.
(2) Wheat flour in sacks (.... lb. sack) which are the equivalent of .... sacks (196 lb. net sack) of flour which are the equivalent to .... bu. of wheat.
(f) Price and basis upon which price determined (price for wheat must be given basis f.o.b. vessel U.S. port on exports from Gulf and East Coast ports and f.o. store U.S. port on exports from the West Coast; price for wheat flour may be given as stated in sales contract).

Selected

MILLING WHEATS

Choice hard and soft winter wheats to fill the most exacting milling requirements. We offer complete coverage of all major wheat growing areas. We originate wheat from our 56 country elevators in four southwestern states and maintain large terminal storage facilities. Total elevator capacity over 8,000,000 bushels. Call us for your wheat and coarse grain requirements.

HARD AND SOFT WHEATS

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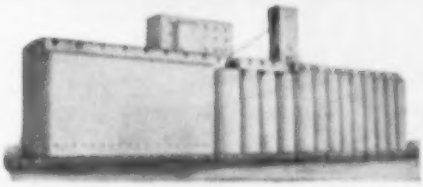

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Capacity 2,000,000 bus.

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Capacity 1,400,000 Bus.

NORRIS

GRAIN COMPANY

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NEW YORK
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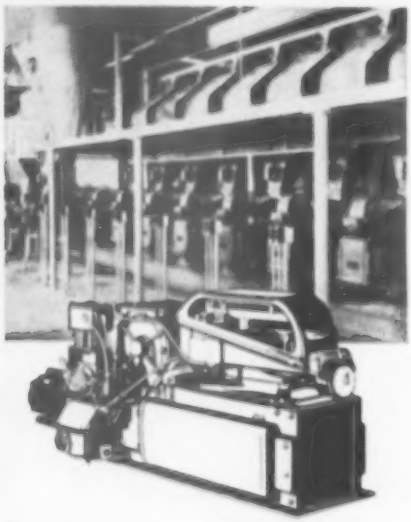
TOTAL ELEVATOR CAPACITY 8,000,000 BUSHELS

W & T Merchen Scale Feeders—Again Proven by Performance



W&T Merchen Scale Feeders, blending BY WEIGHT once again have proven their worth as reliable, economical feeders.

A typical example of their dependable foolproof operation is shown in the installation pictured. All 9 of these feeders are interlocked for automatic, continuous blending operation. The installation is designed so that if bridging or arching in hoppers occurs or if any feeder is starved of material the entire blending operation will automatically stop — thus protecting the formula. In addition, each feeder motor can be manually operated by push button and as an added safety feature, any power failure will automatically shut down the entire system.

Other major design characteristics of W&T Merchen Scale Feeders include:

CAPACITY—9" Belt—from a few ounces up to 500 pounds per minute.
18" Belt—from a few ounces up to 3000 pounds per minute.

FEED RANGE—a wide range of feed rates and arrangements is possible to accommodate different materials and operating conditions.

FEED REGISTER—permits calculation of total amount fed during any given period.

CONSTRUCTION—sturdy, dust tight and corrosion resistant.

Write now and learn how feeding BY WEIGHT with the W&T Merchen Scale Feeder can cut your feeding costs.

M-4

WALLACE & TIERNAN COMPANY, INC.

CHLORINE AND CHEMICAL CONTROL EQUIPMENT

NEWARK 1, NEW JERSEY • REPRESENTED IN PRINCIPAL CITIES

(g) Class and grade of wheat, or type and extraction of flour.

(h) Export rate in effect and time of sale or time of sailing (bulk) of grain, whichever is lower, also coastal area from which exportation will be made should be entered (limits following export rate).

(i) The Declaration of Sale must be filed in the name of the exporter who has sold the wheat or wheat flour to a foreign buyer. Persons or firms selling wheat or wheat flour to others who resell such wheat or wheat flour for foreign shipment are not exporters. If a sale is made in a trade name, the Declaration of Sale may be filed under such name provided the name of the actual exporter and the relationship between the two is clearly established by an appropriate signature on the declaration and all other documents to read, as:

American Milling Co.
(Trade Name)
By: A. Miller
(C. E. Miller) Jr.
Signed John Smith, Secretary.

(j) Supporting evidence as proof of sale must be filed in triplicate with each declaration of sale. Such evidence may be in the form of certified true copies of offer and acceptance or other documentary evidence of sale exchanged between exporter and buyer. In the case of flour the exporter must also furnish in triplicate a signed statement or other acceptable evidence such as an exchange of cables, from both buyer and seller, that the sale is within the terms of the wheat agreement.

(e) **Notice of export—Wheat Agreement Form No. 2.**

(1) Only one Notice of Export is required in connection with any one Declaration of Sale; such Notice of Export must be filed by the exporter within two weeks after date of export of the last shipment against the quantity shown as sold on the applicable Declaration of Sale covering such lots of filing is extended to the manager). This notice must be prepared in two copies and be filed with the manager.

(2) The Notice of Export shall contain the following information:

(a) FMA sales number.

(b) Date of export of final shipment.

(c) Country of final destination.

(d) Total quantity actually loaded on all shipments made in connection with applicable Declaration of Sale.

(e) Such additional information as Sell-Ownal may at any time be requested by the manager.

(f) The exporter shall file such additional reports as may be required from time to time by the manager subject to the approval of the Bureau of the Budget.

(f) (1) (i) **Application for payment.** The exporter shall file application for payment under this program in the following manner:

(a) Public voucher form FTA-344—An original and 3 copies of form FTA-344 must be prepared and submitted together with the evidence of exportation set forth in paragraph (h) below. Suggestions of form FTA-344 and detailed instructions regarding the preparation and submission of forms FTA-344 and supporting documents may be obtained from the FMA commodity offices listed in paragraph (c) below or from the Manager, Commodity Credit Corp., Washington 25, D.C.

(b) **Documents required to evidence exportation by exporter.** Each voucher must be supported by two copies of the applicable on board ocean bill of lading signed by an agent of the ocean carrier or if exported by rail or truck, two authenticated copies of the "Shipper's Export Declaration" which identifies the shipment and shows date of departure into the foreign country. If the formalities of the shipment which on the ocean bill of lading is not the eligible country named in the Declaration of Sale and supporting evidence of sale, the exporter shall also furnish an authenticated copy of "Shipper's Export Declaration."

If the shipper or consignee named in the on board ocean bill of lading or the shipper's Export Declaration(s), including either of which may be required in other than the United States, is the holder of a Sale and Declaration of Sale, either by such shipper or consignee of any interest in the claim in favor of such exporter is required. Such bills of lading (shall) (shall) the on board ocean bill of lading or Shipper's Export Declaration(s) submitted in evidence exportation if the shipper or consignee is neither the exporter named in the Notice of Sale and Declaration of Sale, but the consignee checked with the Declaration of Sale and supporting evidence of sale the exporter must submit in addition to the marine a certification by such shipper or consignee that he acted only as freight forwarder agent of exporter, or agent of consignee and not as buyer and seller of the wheat or wheat flour shown on the documents submitted in evidence exportation.

(c) **Submission of vouchers for payment.** Exporters should submit vouchers and required supporting documents to the offices listed below which service the states in which the exporters' principal offices are located.

Office:

Hiram W. Sutton, director FMA Commodity Office, U.S. Department of Agriculture, 449 W. Peachtree St. N.E., Atlanta 3, Ga. Virginia, Kentucky, Tennessee, North Carolina, Mississippi, Alabama, Georgia, South Carolina, Florida.

George D. Bradley, Director FMA Commodity Office, U.S. Department of Agriculture, 421 So. Wabash Ave., Chicago 5, Ill. Iowa, Illinois, Indiana, Ohio, Michigan.

Latham White, director FMA Commodity Office, U.S. Department of Agriculture, 1111 Commerce St., Dallas 2, Texas. New Mexico, Oklahoma, Arkansas, Texas, Louisiana.

W. R. Walton, Director FMA Commodity Office, U.S. Department of Agriculture, 907 Delaware Ave., Kansas City 5, Mo. Wyoming, Colorado, Nebraska, Kansas, Missouri.

James A. Cole, Director FMA Commodity Office, U.S. Department of Agriculture, 325 McKnight Bldg., Minneapolis 1, Minn. Montana, North Dakota, South Dakota, Minnesota, Wisconsin.

Lawrence A. Grogan, Director FMA Commodity Office, U.S. Department of Agriculture, Room 1304, 57 Broad St., New York 4, N.Y. West Virginia, Maryland, Delaware, Pennsylvania, New Jersey, New York, Connecticut, Rhode Island, Maine, Massachusetts, Vermont, New Hampshire.

Clyde L. Noble, Director FMA Commodity Office, U.S. Department of Agriculture, 115 S.W. 10th Ave., Portland 5, Ore. Washington, Oregon, Idaho.

Roland F. Bullen, director FMA Commodity Office, U.S. Department of Agriculture, 10 Van Ness Ave., San Francisco 2, Calif. California, Nevada, Utah, Arizona.

(f) (1) (ii) **Cancellation of sale.** The exporter shall notify the manager promptly in every case where prior Notice of Sale, so to speak under this program or under the provisions issued by the "Terms and Conditions of the 1948-49 Wheat and Wheat Flour Export Program" (11 FR 4931), a sale under either program is cancelled by

the exporter or by the importer and the reason for such cancellation. In any case where the manager is of the opinion that such cancellation was made with the intent of obtaining the benefit of higher rates of payment subsequently announced, he may refuse to confirm any sale thereafter made either by such exporter or to such importer, or he may confirm such sales and make payment thereon provided that, up to the quantity equal to the quantity included in the cancelled sale or sales, payment shall be made on the basis of the rate announced for the period during which such sales are made or the rate applicable to the previously cancelled sales, whichever is the lower. Also, in any case where any wheat or wheat flour covered by a sale confirmed pursuant to Sec. 571.22 is not exported at the expiration of the period specified in this program and the manager determines that such sale remained unfilled in order to enable the exporter or importer to receive the benefit of higher rates of payment on other sales under this program, he may refuse to make payment to an exporter until such unfilled sales are completed, or he may make payment, in which event payment on the quantity equal to such unfilled quantity shall be made on the basis of the rate applicable to the unfulfilled sale or the completed sale, whichever is lower.

571.27. **Records and accounts.** Each exporter shall maintain accurate records showing sales and deliveries of wheat or wheat flour exported or to be exported in connection with this program. Such records, accounts, and other documents relating to any transaction in connection with this program shall be available during regular business hours for inspection and audit by authorized employees of the U.S. Department of Agriculture, and shall be preserved for two years after the effective date of this offer.

571.28. **Set-off.** The CCC may set-off against any amount owed to any exporter hereunder, any amount owed by such exporter to Commodity Credit Corp., the U.S. Department of Agriculture, or any other agency of the U.S.

571.29. **Assignments.** No exporter shall, without the written consent of the manager, assign any right of the exporter against the CCC hereunder. The exporter may, however, name a lien holder as joint payee on voucher Form FDA-361, provided that the lienholder shall have no claim against CCC because of any lien or encumbrance on the wheat or wheat flour exported and provided also that such lien or encumbrance shall not prevent the right of set-off as provided in Sec. 571.28.

571.30. **Good faith.** If the manager determines that any exporter has not acted in good faith in connection with any transaction hereunder or has failed to discharge fully any obligation assumed by him hereunder, such exporter may be denied the right to continue participating in this program or the right to receive payments hereunder in connection with any sales previously made under this program, or both.

571.31. **Amendment and termination.** This offer may be amended or terminated by the manager at any time by public announcement of such amendment or termination. Any such amendment or termination shall not be applicable to sales for export (which otherwise comply with the terms of this offer) made before the effective time and date of such amendment or termination.

571.32. **Persons not eligible.** No agency of the federal government and no member or delegate to Congress, or resident commissioner, shall be admitted to any share or part of any payment made under this offer or to any benefit that may arise therefrom, but this provision shall not be construed to extend to a payment made to a corporation for its general benefit.

571.33. **Delegation.** A. J. Burton and R. E. Mease, in the office of the manager, Commodity Credit Corp., are designated as the authorized representatives of the manager severally to confirm sales pursuant to the terms and conditions contained herein.

571.34. **Definitions.** When used in this subpart the term:

(a) "Manager" means the manager of the Commodity Credit Corp., or his authorized representative.

(b) "Wheat agreement" means the International Wheat Agreement ratified by the President June 17, 1949, pursuant to the advice and consent of the Senate.

(c) "Wheat council" means the International Wheat Council established by Article XIII of the wheat agreement.

(d) "Wheat" means wheat grown in the U.S. and as defined in the official grain standards of the United States.

(e) "Wheat flour" or "flour" means flour processed in the U.S. from wheat, but shall not include wheat products produced during a continuing process of manufacturing processed wheat products other than flour or flour mixes which are composed principally of wheat flour.

(f) "Sale" includes a contract to sell.

Effective time and date. This offer shall be effective on Oct. 31, 1949, at 11:01 a.m., E.S.T. As to sales made subsequent to effective date of this offer and prior to 3 p.m., E.S.T., Nov. 4, 1949, involving use by the foreign buyer of funds made available from ECA appropriations, the applicable rates shall be the same rates as those applicable to the sale had the sale been eligible under "Terms and Conditions of 1949-50 Wheat and Wheat Flour Export Program" (14 F.R. 4811). The rates applicable to all sales after 3 p.m., E.S.T., Nov. 4, 1949, shall be the rates announced in accordance with Sec. 571.21 of this program.

Note: The record keeping and reporting requirements contained herein have been approved by the Bureau of the Budget in accordance with Federal Reports Act of 1942.

Issued this 4th day of November, 1949.

Signed ELMER F. KRUSE,
Manager,
Commodity Credit Corp.

Approved:
Signed RALPH S. TRIGG,
President,
Commodity Credit Corp.

Protein Content of American Wheat

The practice of classifying and storing wheat on the basis of protein content was adopted by flour mills about the time of World War I. A few grain elevators also adopted this practice of sorting and binning wheats, and later selling large lots on a protein basis.

Rapid developments in the field of cereal chemistry and products control in the flour mills soon led to the practice of paying premiums for high protein wheat. The force of this new factor in wheat merchandising influenced grain inspection departments to add protein laboratories to their equipment, the first such laboratory being opened in Portland, Oregon, in 1921.

The factors of protein content and protein quality do not enter into determining the actual grade of wheat, but are supplemental factors that aid in establishing prices for different lots of wheat based on their utility value, since the protein content and protein quality of wheat largely determines its end use. Cereal chemists and baking technologists prefer a "strong" flour, milled from high protein hard wheats, for breads, while "weak" (i.e., low-protein) flours are desired for the manufacture of cakes, crackers, biscuits and other specialty goods. Soft wheats, largely because of their lower protein contents, supply the bulk of the pastry goods flours.

Considerable research has been conducted by various agricultural scientists in attempts to determine the influence of different factors involved on the protein content of wheat.

The principal factors that have been studied include: precipitation (its incidence and amount), soil type, soil fertility, commercial fertilizers, atmospheric temperature, soil temperature, wheat variety, soil microbiology.

Investigators almost universally agree that there is an inverse relation between moisture supply and protein content. Dr. J. A. Anderson, chief chemist, Board of Grain Commissioners for Canada, states that "one can go further and say that it is the consensus that the moisture content of the soil during the growing season is the most important single factor controlling the protein content of wheat."

Temperature has been found to affect the wheat plant both directly and indirectly by causing changes in the soil and by influencing the physiological processes. Higher air temperatures, Dr. Anderson observes, may increase protein content by increasing soil temperature, and thus nitrification, and by increasing the evaporation rate which serves both to reduce the moisture content of the top soil and to increase the concentration of nitrates in the soil solution.

For complete discussions of the factors that affect protein content of wheat, readers are referred to the following:

"Factors That Determine Wheat Protein," by Dr. M. A. McCall, The Northwestern Miller, page 1a, Sept. 12, 1944.

"Nitrogen, Rainfall and Wheat Protein," by Dr. C. O. Swanson, The Northwestern Miller, page 1a, Nov. 8, 1944.

"Variations in the Protein Content of Western Canadian Wheat," Bulletin No. 6, by Dr. J. A. Anderson and Dr. W. J. Eva, Board of Grain Commissioners for Canada.

"Protein Surveys of American Hard Spring and Soft Winter Wheat," Technical Bulletin No. 141, by Dr. C. H. Bailey, Minnesota Agricultural Experiment Station.

Average Percentage of Protein in Spring Wheat Marketed Through Minneapolis, Minn.

Crop Year	Protein %	Crop Year	Protein %
1940	14.61	1945	12.94
1941	15.78	1946	13.33
1942	13.20	1947	13.13
1943	13.44	1948	13.47
1944	12.82	1949	13.49

Mean Annual Protein Levels for Hard Red Winter Wheat Received at Kansas City

Crop Year	Protein %	Crop Year	Protein %
1940	12.74	1945	11.28
1941	12.87	1946	11.78
1942	13.14	1947	11.63
1943	13.00	1948	11.49
1944	11.54	1949	12.72

Source: Agricultural Marketing Service, U. S. Department of Agriculture; Kansas State Grain Inspection Department.

Mean Annual Protein Levels for Soft Red Winter and Michigan White Wheats

Year	Ohio Red	Central Michigan White	Indiana Red
1940	10.85	9.6 @10.25	9.73
1941	10.78	9.25@10.6	10.78
1942	10.24	9.62@10.22	10.78
1943	10.50	9.16@10.36	10.93
1944	11.22	10.23	11.35
1945	9.10	9.75	10.90
1946	9.18	9.06	9.43
1947	9.43	9.56	9.71
1948	9.00	9.22	9.73
1949	9.81	9.28	9.84

Source: The Mid-West Laboratories Co., Inc., Columbus, Ohio.

Mean Annual Protein Levels for Western Canadian Wheat, by Crop Years

Crop Year	Protein %	Crop Year	Protein %
1940	14.9	1945	13.1
1941	14.4	1946	13.0
1942	13.2	1947	13.9
1943	13.3	1948	13.6
1944	13.1	1949	13.1

Source: Grain Research Laboratory, Board of Grain Commissioners for Canada.

FEED GRAINS—
—OUR SPECIALTY
• Corn
• Milo
• Oats
• Barley
• Kaffir
• Wheat
Shipped according to your specifications — sacked or bulk — mixed or straight cars — ground or whole.
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1056 BOARD OF TRADE
KANSAS CITY, MISSOURI

AMERICA'S *Finest, Newest* DAYLIGHT PACKING PLANT

Designed to pack in eight hours the entire 24-hour-day production of the immense Commander-Larabee mills at Kansas City, this new plant represents the constant effort for better methods and improved facilities that characterizes the entire organization.

It represents a considerable addition to the millions already invested by Commander-Larabee in mills, in personnel, in "know-how" . . . to assure more and still more quality and dependability in a product that has met the needs of bakers across the nation for more than a generation!

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WORLD IMPORT DUTIES on FLOUR and GRAIN

THE Office of International Trade, U.S. Department of Commerce, has supplied the following data covering import duties on wheat, flour and bran, as of Feb. 1, 1950.

The department points out that it cannot guarantee that the rates here given will always be applied to particular shipments, since duties are subject to change at any time. These duties should be confirmed after a lapse of some months.

When two or more rates of duty for the same article are indicated, products of the U.S. as a rule are admitted at the lowest ("minimum") rate, except (a) into Canada, where the "intermediate" rate applies; (b) into British Commonwealth countries, where the "preferential" rate does not apply to non-British imports.

*Where British preferential rates are shown for the British countries listed, they are accorded to Canadian wheat, flour and bran except in Australia, where the preferential rate is accorded to Canada only in respect of bran. In those British areas for which no preferential rates are given (including the United Kingdom in respect of wheat), the rates shown apply equally to the United States and Canada.

*In all other countries listed below, except Cuba and the Republic of Honduras, imports of Canadian grain and its products enjoy equal tariff treatment with imports from the United States either through the operation of most-favored-nation agreements concluded by Canada with those countries or by the fact that the rates apply equally to imports from all countries. Cuba accords to the United States an exclusive preference on most grain and its products. However, under the General Agreement on Tariffs and Trade the Cuban preference to United States wheat was abolished and the preference on flour considerably reduced. In the Republic of Honduras, certain minor supplementary charges are levied at a higher rate on imports of wheat flour from Canada than on similar imports from the United States.

*Tariff information regarding the tariff status of Canadian wheat, flour and bran is provided by the International Trade Relations Division, Department of Trade and Commerce, Ottawa.

Europe

All rates of duty are per 100 kilos (220.46 lb.) unless otherwise specified.

ALBANIA

No information is available regarding the present customs regime in Albania. U.S. trade with Albania is being conducted in accordance with current U.S. export control regulations.

AUSTRIA

The Transitory Customs Law of June 13, 1946, reinstated the Austrian Customs Law of Jan. 18, 1925, and the customs duties in effect at the time of the annexation in 1938. Duties are stated in gold crowns but are payable in Austrian schillings at the rate of one schilling to one gold crown.

	(Duty in schillings per 100 kg. (general rate))
Wheat, rye, barley, oats	1.40
Bran, corn	Free
Flour and other milling products	1.50 per 100 kg. of grain

Imports of the above products require an import license and a foreign exchange permit.

Sales or similar internal taxes: 1% of duty-paid value for cereals and products made of cereals only, plus a surtax of 10% effective June 1, 1948.

Note—Supplementary duties of 16 schillings per 100 kg. on wheat and 4 schillings per 100 kg. on rye and barley are currently in effect.

BELGIUM — NETHERLANDS — LUXEMBURG

Wheat, ad valorem	Free
Rye	Free
Barley	Free
Oats	Free
Maize (corn)	Free
Buckwheat	Free
Flours of the above, ad valorem	3%

Note—A quantity not in excess of 10,000 metric tons per year may be imported into the Netherlands for consumption exclusively in the Netherlands free of customs duty. After 10,000 tons have been imported, the normal 3% rate applies.

Import licenses are required in Belgium-Luxemburg and in the Netherlands for imports of grains from all areas.

Transmission tax:	% of duty-paid value
Wheat, spelt, rye and meslin	2.50
Corn	3.00
Other grain	4.00
Wheat and rye flour, groats and semolina	*1.50
Other flour	*4.50
Bran	4.00

*Packed in packages for retail sale 5.00

BULGARIA

No recent tariff information is available. U.S. trade with Bulgaria is being conducted in accordance with current U.S. export control regulations.

CZECHOSLOVAKIA

	(Duty in Czechoslovak crowns per 100 kilograms gross weight)
Wheat	106.00
Rye	115.00
Barley	100.00
Oats	104.00
Flour and milling products from cereals and pulse	200.00
Semolina imported under special license for the manufacture of food pastes, up to 2,000 metric tons annually and under special conditions	15.00

Import turnover tax varies according to commodity pursuant to General Tax of Dec. 21, 1948. The General Tax rates on grains are as follows (in crowns per 100 kilograms): Wheat, 4.80; rye, 3.45; barley, 1.75 for feed barley; 2.80 for industrial manufacturing, 3.50; oats, 2.85; corn, 3.50. Barley used for other purposes is subject to a tax of 1% of the wholesale price and flour, all types, to a tax of 4% of the wholesale price. General tax rates on milling products are currently under preparation by the Czechoslovak Minister of Finance.

All imports require an import license. The following state-controlled companies are exclusively authorized to engage in foreign trade in the designated commodities: "Koospol, Ltd.," agricultural products a.o.n.; "Centrokomo, Ltd.," foodstuffs; "Czechoslovak Malting, Ltd.," malt and malt products; "Czechoslovak Hop Export, Ltd.," hops.

DENMARK

Import licenses are required for flour. Wheat, rye and their products n.o.s. Free grain and flakes. All imports are subject to exchange control.

FINLAND

	Finnish marks per kilo
Wheat	*1.00
Wheat flour:	
Unsifted	†1.75
Dulled	‡1.75
Bran	1.50

All imports into Finland are subject to permit and exchange control.

*Millers may secure a duty reduction of 1.75 marks per kilogram on a quantity of imported wheat equal to the domestic wheat ground by them.

†Plus the duty on unground wheat.

‡Plus the duty on 1½ kilograms of unground wheat. A duty of 1 marks per kilogram may be established, subject to conditions, on flour for the manufacture of macaroni.

FRANCE

The importation of wheat and bread flours is under the monopoly control of the National Cereal Office. Import restrictions or license requirements also apply to all grains and flours.

	Minimum Duty in French francs*
Wheat flour, 80% extraction of more	70% ad val.
Wheat flour, 65 to 79% extraction, inclusive	70% ad val.
Wheat flour, less than 65% extraction	30% ad val.
Oatmeal (breakfast cereal)	30% ad val.
Oat flakes	30% ad val.
Rye flour	60% ad val.
Wheat	30% ad val.
Oats	30% ad val.
Barley	60% ad val.
Rye	60% ad val.
Corn	30% ad val.
Bran	Free

Production tax: Wheat, oats, barley, rye and corn, exempt; wheat and rye flour, intended for bread making, exempt; not intended for bread making 1% ad valorem; oatmeal, oat flakes and bran, 1% ad valorem. Milling tax on wheat, in francs per quintal of flour (quintal equals approximately one hundredweight).

Portion comprised between 1,001 and 3,000 quintals	2.11
Portion comprised between 3,001 and 10,000 quintals	4.00
Portion comprised between 10,001 and 15,000 quintals	5.34
Portion in excess of 15,000 quintals	6.68

Transaction tax, 1%.

Import duties are temporarily suspended, except on oat flakes. Import permits are required.

*French duties as listed apply in the floor territory.

GERMANY

Purchases for western Germany are handled through the Commodity Credit Corp. for the time being. Temporary customs exemptions of customs rates for grain and its products were granted until June 30, 1949, by Economic Council Ordinance No. 110 of Aug. 16, 1949.

It is believed that customs duties are also suspended on foodstuffs imported by the Soviet authorities into eastern Germany.

GREECE

	(Duty in metallic drachmas) Maximum	Minimum
Wheat flour	11.00	10.75
Wheat	7.00	6.00
Bran	3.00	2.00

Also a duties are stated in metallic drachmas but are payable in paper drachmas at the rate of 1,000 paper drachmas to 1 metallic drachma on wheat flour and bran and 1,500 to 1 on wheat. In addition to the duty, there are surtaxes amounting to three fourths of basic duty, payable at the same ratio. The milling quotas for wheat limit imports of American grain.

The importation of wheat and flour is subject to permit.

HUNGARY

All imports are subject to license. The following rates of duty are as of March, 1946:

	Duty in gold crowns (per 100 kilos)
Wheat and spelt	4.56
Rye and maslin	3.80
Millet and buckwheat	1.26
Barley	3.08
Oats	4.80
Corn (principally)	Free
Wheat flour and semolina	13.00
Rye and maslin flour	12.00
Pearled barley, other milled barley products	12.00
Milled oat products	10.00
Milled corn products	8.00
Milled millet products, other milled cereal products, other than rice	10.00

Duties are stated in gold crowns but are payable in forint. One gold crown equals four forint.

In the past, temporary removal or reduction of duties on cereals has been made for short periods and usually for grain for public supply on the basis of a special license.

Import Turnover Tax: Wheat, spelt, rye, maslin, millet, buckwheat, barley, oats, corn—10% ad valorem; milled products of the above grains—15% ad valorem.

IRELAND (OR EIRE)

Wheat	Free
Wheat flour, under permit, and bran	*Free

*May be imported only under permit.

ITALY

	Duty in paper lire
Wheat	15.00
Wheat flour	18.00
Bran	7.35

Since the armistice with Italy, these products have been imported on chiefly Italian government account. Imports are subject to ministerial import license.

LATVIA

(Latvia has been incorporated into the U. S. S. R.)

LITHUANIA

(Lithuania has been incorporated into the U. S. S. R.)

LUXEMBURG

(See Belgium-Netherlands-Luxemburg)

NETHERLANDS

(See Belgium-Netherlands-Luxemburg)

NORWAY

	Duty in crowns
Wheat and rye flour, wheat and bran	Free

The importation of wheat, rye, barley and oats and products thereof is controlled by a government monopoly.

POLAND

Collection of import duties has been suspended pending the institution of a new tariff. Almost all imports are subject to import licensing, for which license a fee is collected. The fee varies according to the commodity to be imported and the end use. No fee is charged for certain capital goods and certain raw materials, whereas the fee for non-essentials and luxury goods would be very high if such license would be granted at all.

Though the collection of customs duties is suspended, the imposition of import license fees and certain other taxes has the effect of customs duties. Complete information is not available regarding all taxes. Cereals and cereal products imported by undertakings or establishments controlled by the Central Board of the Food Stuffs Industry are understood to be subject to a turnover tax of 1%. There is also a customs manipulation fee assessed per 100 kilograms gross as follows: cereals, 12 zlotys; flours, groats, malt, rice and starch, 100 zlotys.

PORTUGAL

	Duty in gold escudos per kilo
Bran, gross weight	0.008

Wheat and wheat flour may be imported only by authority of special decrees, which also fix the rates of duty.

Duties are paid in paper escudos at the rate of 24.61 paper escudos to one gold escudo.

Surtax—40% of duty. Imports subject to permit.

RUMANIA

The revised Rumanian tariff schedule of January, 1946, shows the following rates:

Item—	Duty in Lei per 100 kilos	Turnover tax ad valorem Industrial	Commercial
Wheat, spelt	161.00	14	14
Corn	64.00	24	9
Barley	84.00	24	24
Oats	92.00	24	24
Rye	464.00	14	14
Millet	144.00	24	24
Wheat flour	1,872.00	*1.84	*1.84
Flour other than wheat	924.00	24	24

*In Lei per kilogram.

All imports are subject to licensing. Foreign trade on grain is state controlled.

SPAIN

	Duty in gold pesetas
Wheat	15.40
Wheat flour	23.10
Flour of other cereals	2.00

Imports are subject to permit.

SWEDEN

	Duty in crowns
Wheat flour, rye flour, etc.	6.00
Wheat, rye, barley	3.74
Bran	Free

Imports of wheat and rye and their milled products are under government controlled monopoly.

Note—The duty on barley was suspended through June 30, 1946.

SWITZERLAND

	Duty in francs
Wheat and rye	3.00
Grain (except corn)	3.00
Corn	0.10
Cereals, pearled, hulled, cleaned or crushed, groats and semolina, except oats	4.50
Oats, hulled, cleaned or crushed	5.00
Flour, packages over 5 kilos	6.00
Flour, packages up to 5 kilos	10.00
Bran	0.50

The following supplementary duties stated in francs per 100 kilos are also levied: Oats, worked up, 1; barley, cleaned, 25; other cereals, worked up, 5; oatmeal, 4; barley meal and meal of cereals, 8. Barley and other cereals and pulses, used in the preparation of brewing malt or beer, are subject to an additional duty of 4.81 francs per 100 kilos gross, and malt when used in the manufacture of beer is subject to an additional duty of 5.56 francs per 100 kilos gross.

Importation of flour is a government monopoly and is subject to an additional duty of 25 francs per 100 kilos gross. Wheat and other cereals require an import permit.

Under the United States-Switzerland reciprocal trade agreement, the United States was granted an annual quota of 114,880 metric tons of wheat.

	Francs per metric ton
License tax—metric ton of wheat	
Cereals, and flour of corn and rice in containers of over 5 kilos each	0.50

TURKEY

	Duty in Turkish paper pounds per 100 kilos gross weight
Wheat	14.17
Wheat flour	21.25
Bran	4.11

Transaction tax, 11% for wheat and bran; 12.5% for wheat flour.

UNITED KINGDOM

	General	British preferential
Wheat	Free	Free
Wheat flour and bran, ad valorem	15%	Free

Imports are subject to license.

(U. S. S. R.) RUSSIA

Wheat, other grains and bran	Free
Flour, ad valorem	15%

Trade in Russia is a government monopoly.

The 1939 tariff schedule is officially confirmed as being in effect.

YUGOSLAVIA

No recent tariff information is available. U.S. trade with Yugoslavia is being conducted in accordance with current U.S. export control regulations.

North America

Dates of duty are per 100 kilos (220.46 lb.) unless otherwise specified.

BRITISH HONDURAS

	Duty in dollars General	Preferential (Br. Emp.)
Wheat, ad valorem	15%	14%
Flour 100 lb.	5.39	5.13
Bran, ad valorem	15%	14%
Bran (for dairy farming)	10%	Free

Bran, 1% ad valorem surtax.

Import permits are required for all imports.

CANADA

	Duty in dollars British preferential	Most-favored Nation	General
Wheat flour and semolina, per bbl. (196 lb.)	Free	.50	1.35
Wheat, per bu. (60 lb.)	Free	.11	.30
Millfeed	15%	15%	35%
Barley, n.o.p. per bu.	Free	27½	.35
Indian corn, per bu.	Free	.03	.35
Oats, per bu.	Free	.01	.16
Rye, per bu.	Free	.04	.15

The Most-Favored-Nation Tariff rates apply to importations from the United States under treaty regulations.

The British Preferential Tariff rates apply to importations from British Empire countries under the British Preferential Tariff Regulations.

The above products are exempt from the consumption or sales tax.

Under the Canadian Wheat Board act wheat, oats and barley and their products may be imported without a permit from the board.

All applications for permission to import the above must be forwarded direct to the Canadian Wheat Board, 423 Main St., Winnipeg, Man.

Entries of such wheat, oats and barley and their products imported into Canada are not to be accepted unless accompanied by written approval of the Canadian Wheat Board, which written approval is to be filed with the port copy of the entry and an endorsement to that effect placed on the departmental copy.

The importation of the above products is not affected by the Emergency Exchange Conservation Act.

COSTA RICA

Official exchange rates: Buying (5.64 colones equals 1); selling (5.81 colones equals 1).

	Duty in colones
Wheat	*Free
Wheat flour, best grade	14.00
Wheat flour, inferior grades	14.00
White wheat flour	15.00
Bran	4.00

*of duties and taxes.

Wheat flour, as a Trade Agreement item, is exempt from all customs surtaxes but subject to a consumption tax of 0.18 colones per gross kilogram; wheat and bran are subject to various additional taxes totaling 0.06 colon per gross kilogram, plus 2% of the f.o.b. value plus, in wheat, the consumption tax of 0.18 colon per gross kilogram.

A certificate of sanitation (analysis) and a certificate of origin are required for shipments of wheat flour, and these documents must be legalized by a Costa Rican Consul in the United States.

Note—The import duty rates on "wheat flour best grade" and "whole wheat flour" under the U.S.-Costa Rica reciprocal trade agreement ratings be decreased above 17.91 colones per 100 kilos.

GUATEMALA

	Duty in quetzales
Wheat (gross weight)	1.00
Wheat flour (gross weight)	1.00
Bran for feed	Free

Guatemalan importers of flour must register each brand name with the Department of Public Health, presenting a certificate signed by the miller and a responsible public health officer of the country (city or state) of origin, and certified by a Guatemalan Consul, that the product is safe and wholesome without restriction in the country of origin. An analysis and sample must also accompany the registration.

Note: The duty on wheat and wheat flour is "bound" by the United States-Guatemala reciprocal trade agreement.

HONDURAS

	Duty in lempiras
Wheat flour (gross weight)	12.00
Bran	Free
Wheat (gross weight)	**20.40**

Various customs surtaxes and fees in connection with importation total as follows on these products:

Wheat—8% ad valorem plus 7 lempiras per 100 kilos.

Flour—4% ad valorem plus 3.20 lempiras per 100 kilos.

Bran—8% ad valorem plus 7.10 lempiras per 100 kilos.

Note—The duty on wheat flour is "bound" by the U.S.-Honduras reciprocal trade agreement.

MEXICO

Duty in Mexican pesos

Dutiable Unit—specific + ad valorem.

Flour, including immediate containers, legal kilo	0.14	31%
Wheat, gross kilo	0.04	20%
Bran, gross kilo	0.01	10%
Corn, gross kilo*	Free	1%

There is a surtax of 3% of the duty on all dutiable articles by freight or express.

*Sacks and bags are dutiable separately.

	Official valuation pesos
Wheat flour, per legal kilogram	1.12
Wheat, per gross kilogram	0.75
Bran, per gross kilogram	0.30
Corn, per gross kilogram	0.70

Note—The above duty rates apply to the official valuations (above). However, if the invoice value is higher than the official valuation, the rate applies on the higher valuation.

Packaged foodstuffs must be registered with the Mexican Department of Public Health before importation.

A phyto-sanitary certificate issued by the country of origin is required for importation of wheat into Mexico. Mexican import permits required for importation of wheat and wheat flour.

NICARAGUA

	Duty in gold cordobas
Wheat (net weight)	0.09
Wheat flour (net weight)	2.0475
Bran (net weight)	0.09

There is a tax of 10c per package on all imports, plus 10c per 46 kilos or fraction thereof, up to a maximum 1 cordoba on each imported package.

Duties are paid in paper cordobas at 5 paper to 1 gold cordoba. 1 gold cordoba equals $1 U.S. Certificate of origin is required for wheat flour. Basic tax of 3% is assessed on all sales of foreign exchange. There is a hospital and improvement tax of 1¢ per package on each package imported regardless of size or weight.

Note—The duty on wheat flour is bound by the U.S.-Nicaragua Reciprocal Trade Agreement and by the General Agreement on Tariffs and Trade, when Nicaragua shall ratify this Agreement.

PANAMA

	Duty in balboas per 100 gross kilos
Wheat (gross weight)	1.50
Flour, per kilo (gross weight)	1.00
Wheat bran	**Free**
Corn bran (gross weight)	3.00
Mixed bran with corn	1.00
Bran not specified	**Free**
Seeds for cereals (rice, corn, etc.)	Free

A consular duty of 5% is assessed on the f.o.b. ports-of-exit value of dutiable goods. The consular duty on duty-free items is 3%.

ST. PIERRE AND MIQUELON (FRENCH)

Wheat	Free
Wheat flour, gross weight	Free
Other flour, gross weight	Free
Bran	Free

These products are subject to import permit.

EL SALVADOR

	*Duty in U. S. dollars
Wheat (gross weight)	5.00
Wheat flour, superfine (gross weight)	8.00
Bran (gross weight)	10.40

Duties are paid in colones at the rate of 2.50 colones to $1.

*Duties include all charges and surtaxes.

The duty on wheat is "bound" against increase by the U.S.-Salvadorean trade agreement.

UNITED STATES

Wheat, bu., 60 lb.	$0.21
Wheat flour, 100 lb.	.52
Semolina, 100 lb.	.52
Corn, bu., 56 lb.	*.25
Cornmeal, and flour, 100 lb.	.20
Oats, hulled or unhulled, bu., 32 lb.	.04
Oatmeal, rolled oats, etc., 100 lb.	‡10%
Rye, bu., 56 lb.	.06
Rye flour and meal, 100 lb.	.24
Barley, hulled or unhulled, bu., 48 lb.	.07½
Barley malt, 100 lb.	.20
Pearl barley, lb.	.00¾
Buckwheat, hulled or unhulled, 100 lb.	.10
Buckwheat flour, lb.	.002
Macaroni, vermicelli, etc., lb.	.01½
Macaroni, vermicelli, etc., containing eggs or egg products	.02
Oat and barley hulls, etc., 100 lb.	.02½
Flaxseed, bu., 56 lb.	.50
Linseed oil, lb.	.045

	†Ad valorem
Bran, shorts, etc.	7½%
Unground screenings, etc.	7½%
Ground screenings	7½%
Cereal breakfast foods, etc.	10%
Biscuits, cakes, etc.	‡10%
Wheat, unfit for human consumption	5%
Bread (yeast)	**Free of duty**

*Corn which is the product of and imported from Cuba is dutiable at the rate of 18c per bu of 56 lbs under paragraph 724, Tariff Act of 1930, as modified pursuant to the Cuban Trade Agreement.

†Ad valorem rates apply to the entered or appraised value, whichever is higher. The appraised value is ascertained under section 402 of the Tariff Act of 1930 as amended, in order defined, if such values exist, at foreign or export value, whichever is higher, at United States value, or at cost of production.

‡Plus an additional sugar tax (I. R. C., sec. 3500 (3)), which is 0.5144c per lb of the total sugars therein on all articles composed in chief value of manufactured sugar.

‡10% ad valorem, but not less than 40c nor more than 80c per 100 lb.

In a Presidential Proclamation published in T. D. 50454 it is provided that the rates proclaimed pursuant to trade agreements shall apply to the products of all countries, subject to certain exceptions and conditions.

British West Indies

Rates of duty are in sterling, per 196 lb. unless otherwise specified.

ANTIGUA

	General	British preferential
Wheat	1s 6d	1s 0d
Wheat flour, bbl (196 lbs)	8s 0d	7s 0d
Bran	3s 0d	1s 6d

Surtax, 20% of the duty on all imports except wheat flour, on which it is 10% of the duty.

These products require an import permit.

BAHAMAS

Wheat	1s 0d	6d
Wheat flour, bbl (196 lbs)	1s 0d	Free
Bran	1s 0d	6d

There is a surtax of 5% ad valorem.

These products require an import permit.

BARBADOS

Wheat	4s 0d	Free
Wheat flour, bbl (196 lbs):		
(1) Whole meal	2s 0d	Free
(2) Other than whole meal	1s 0d	1s 0d
Bran	1s 0d	7d

Surtax on imports, 20% of the duty.

Package tax—

Flour, 6d per 196 lbs; bran, 6d per 80 lbs; wheat, 6d per package.

These products require an import permit.

BERMUDA

British Preferential Tariff

	Specific	Ad val.	Surtax
Wheat (100 lbs)	5d	...	...
Wheat flour (98 lbs)	9d	...	...
Bran (100 lbs)	5d	...	...

General Tariff

	Specific	Ad val.	Surtax
Wheat (100 lbs)	...	10%	25%
Wheat flour (98 lbs)	9d	7½%	...
Bran (100 lbs)	...	10%	25%

Import permit is required.

DOMINICA

	General	British preferential
Wheat	3s 0d	1s 0d
Wheat flour, bbl (196 lbs)	10s 0d	8s 0d
Bran	4s 0d	2s 0d

Trade tax, ¾ of 1% ad valorem.

There is also a surtax of 25% ad valorem on bran from all sources.

These products require an import permit.

GRENADA

Wheat	1s 0d	1s 0d
Wheat flour, bbl (196 lbs)	7s 0d	5s 0d
Bran	3d	Free

There is a surtax of 10% of the duty.

These products require an import permit.

JAMAICA

Wheat	3s 0d	1s 0d
Wheat flour, bbl (196 lbs)	12s 0d	8s 0d
Bran	2s 0d	1s 10½d

Package tax—

Packages not over ½ cwt, 6d; over ½ cwt, not over 1 cwt, 1s; over 1 cwt, not over 4 cwt, 2s; each cwt over 4 cwt, 6d.

These products require an import permit.

MONTSERRAT

Wheat	1s 6d	1s 0d
Wheat flour, bbl (196 lbs)	8s 0d	7s 0d
Bran	1s 0d	1s 0d

There is a surtax of 10% of the duty on

Export Package Differentials

Note: All differentials, per 100-lb., effective June 1, 1949. Source: Flour Millers Export Assn.

(All Differentials per 100 lb.)

100-lb. single osnaburg		basis
100-lb. single jute	.06	under basis
100-lb. double osnaburg	.22	over basis
100-lb. jute over osnaburg	.24	over basis
100-lb. jute over cotton (2.50 yard)	.29	over basis
100-lb. jute over cotton (4.00 yard)	.16	over basis
100-lb. osnaburg over cotton (2.50 yard)	.36	over basis
100-lb. osnaburg over cotton (4.00 yard)	.24	over basis
100-lb. single drill	.11	over basis
200-lb. single osnaburg	.02	under basis
200-lb. osnaburg over cotton	.20	over basis
125-lb. jute over osnaburg	.17	over basis
125-lb. jute over jute	.12	over basis
100-lb. single cotton (4.00 yard)	.14	under basis
50-lb. single cotton (3.00 yard)	.07	over basis
50-lb. single osnaburg (long)	.11	over basis
50-lb. single osnaburg (square)	.11	over basis
50 kilos single jute	.10	under basis
50 kilos single osnaburg	.03	under basis
Jute bale, 20-5 lb. cotton	1.31	over basis
Osnaburg bale, 20-5 lb. cotton	1.28	over basis
Jute bale, 10-10 lb. cotton	.67	over basis
Osnaburg bale, 10-10 lb. cotton	.65	over basis
Jute bale, 4-25 lb. cotton	.44	over basis
Osnaburg bale, 4-25 lb. cotton	.43	over basis
Jute bale, 4-25 lb. cotton	.45	over basis
Osnaburg bale, 4-25 lb. cotton	.43	over basis
Jute bale, 4-25 lb. cotton	.41	over basis
Osnaburg bale, 4-25 lb. cotton	.47	over basis
Jute bale, 2-50 lb. cotton	.39	over basis
Osnaburg bale, 2-50 lb. cotton	.65	over basis
Jute bale, 2-50 lb. cotton	.21	over basis
Osnaburg bale, 2-50 lb. cotton	.39	over basis
Jute bale, 4-50 lb. cotton	.28	over basis
Osnaburg bale, 4-50 lb. cotton	.22	over basis
Jute bale, 2-50 lb. drill	.42	over basis
Osnaburg bale, 2-50 lb. drill	.12	over basis

When secondhand osnaburgs are used the differential will be 1¢ under new osnaburgs.

When secondhand jute bags are used the differential will be 1¢ lower.

One cent per 100 lb. is added for packing double bags; 2¢ per 100 lb. is added for packing 50-lb. single bags; 1¢ per bag plus 1¢ for container is added for packing bales.

On cotton and osnaburgs the 1,000-lot price was used. On jute covers the 1,000-lot price plus 1,000-lot black only printing charge was used.

wheat flour, 10% of the duty on other products.

These products require an import permit.

ST. CHRISTOPHER AND NEVIS

Wheat	1s 6d	1s 6d
Wheat flour, bbl (196 lbs)	9s 6d	7s 6d
Bran	9s 6d	1s 6d

Surtax of 11½% of duty.

These products require an import permit.

ST. LUCIA

Wheat	1s 6d	1s 6d
Wheat flour, bbl (196 lbs)	9s 6d	9s 6d
Bran	1s 10	Free

There is a surtax of 11% of the duty except on wheat flour.

These products require an import permit.

ST. VINCENT

Wheat	1s 6d	1s 6d
Wheat flour, bbl (196 lbs)	7s 6d	9s 6d
Bran	1s 6d	1s 6d

There is a surtax of 10% of the duty on wheat and bran.

These products require an import permit.

TRINIDAD AND TOBAGO

	Duties in Trinidad dollars	
Wheat	0.09	0.09
Wheat flour, bbl (196 lbs)	0.84	0.36
Bran	0.10	0.15

These products require an import permit.

TURKS AND CAICOS ISLANDS

(British)—	British preferential General	British preferential essential
Wheat	3s 6d	1s 6d
Wheat flour, bbl (196 lbs)	4s 6d	3s 6d
Bran	1s 6d	1s 6d

Package tax for flour is 1d per cwt or fraction; for bran and wheat, same as in Jamaica.

These products require an import permit.

VIRGIN ISLANDS

Wheat	1s 6d	6d
Wheat flour, bbl (196 lbs), in quantities of 5 lbs or more	1s 6d	1s 6d
Wheat flour, lb. in quantities of less than 50 lbs	¾d	¾d
Bran	1s 6d	1s 6d

There is a surtax of 1% of duty on all imports.

These products require an import permit.

West Indies

CUBA

Rates in U. S. dollars per 100 kilos (220.46 lbs).

	U. S. preferential General	U. S. preferential essential
Wheat, gross weight	$0.18	$0.18
Wheat flour, gross weight	0.83	0.83
Bran (gross weight)	0.40	0.40

Plus surtax of 8% of duty on bran.

CURACAO (NETHERLAND WEST INDIES)

Duties in florins per 50 kilos (110.2 lb.).

Wheat, ad valorem (invoice valuation)	3%
Wheat flour	6.50
Bran for feed	Free

Surtax on all imports is 10% of the duty.

Importers are not permitted to place orders abroad until the exchange control authorities have authorized payment to be made.

DOMINICAN REPUBLIC

Duties in U. S. dollars per 100 kilos (220.46 lbs).

Wheat and bran	Free
Wheat flour, vitaminized or not, net weight	$2.00
Semola, net weight	$1.50

In addition, there is an internal tax of $1 per net 100 kilos on wheat flour.

Additional taxes: Import license tax, 3.5% ad val. wharfage tax, 37c each 50 gross kilos (if less than 50 gross kilos, exempt); document taxes, 1% and 5% ad valorem, and a $4 clearance fee on all imports.

FRENCH WEST INDIES GUADELOUPE

Wheat	*10% ad val.
Wheat flour at rate of extraction:	
Less than 85%	*30% ad val.
85% inc., or more	*70% ad val.
Bran of all grains	Exempt

Transaction tax on wheat flour not destined to bread-making: 11% of duty-paid value; on bran, 2.5%.

Octroi tax on wheat: 1% ad valorem; on bran, 2% ad valorem.

Importation of these products is subject to permit.

MARTINIQUE

Wheat	*10% ad val.
Wheat flour at rate of extraction:	
Less than 85%	*30% ad val.
85% inc., or more	*70% ad val.
Corn	*10% ad val.
Cornmeal	*10% ad val.
Bran of all grains	Exempt

Transaction tax is 1% of the duty and tax paid value.

Production tax on wheat flour not destined to bread-making: 11% of duty-paid value; on bran, 2.5%.

Octroi tax on wheat and flour is 1 francs per 100 net kilos and 1% on bran.

Importation of these products is subject to permit.

*Temporarily exempted from duty.

HAITI

Duties in gourdes per net kilo.

Wheat	0.11
Wheat flour	0.33
Bran	0.04

Surtax on all imports is 10% of duty.

Special surtax of 3% assessed on combined total of c.i.f. value, duty, surtaxes, handling and stamp charges.

South America

Rates per 100 kilos (220.46 lbs) unless otherwise specified.

ARGENTINA

	Valuation in gold pesos	Duty ad valo.	Surtax ad valo.
Maize flour (lb. (bag) including (lb.) container, per kilo	0.04	Exempt	Exempt
Flour* per kilo	0.314	15%	17%
Flour† per kilo	0.33	15%	17%
Flour‡ per kilo	0.31	15%	17%
Bran, prepared for making passtrice, per kilo	1.00	15%	17%

*Of wheat or corn, in sacks or barrels, including the weight of the container.

†Of all other edible materials, of whatever quality or form, in packages or tins, including tapioca, sago, oatmeal, and other similar preparations, including the weight of the container.

‡Of all other edible materials, in boxes or bags, or in other containers, including the weight of the container.

BOLIVIA

Duty in bolivianos

Wheat flour, gross weight	11.00
Wheat, gross weight	11.00

For sowing, free, under permit.

Bran, gross weight	1.50

There is a surtax of 100% of the duty on bran.

Flour, domestic and foreign, is subject to a tax of 1 bolivianos per quintal of 46 kilos.

Imports are subject to permit.

BRAZIL

Duty in cruzeiros*

	Minimum rates per ton
Wheat,† gross weight	86.94
Wheat, cracked or half milled (legal)	217.36
Wheat flour,‡ legal weight	317.06
Bran and middlings, gross weight	174.82

*There is a surtax of 10% of the duty.

†There is an additional surtax of 0.60 cruzeiro per 24 kilos of flour theoretically to be extracted from imported wheat, at a fixed extraction ratio of 70%.

‡There is an additional surtax of 0.60 cruzeiro per 24-kilo bag of imported flour.

The surtax of 3% of c.i.f. value, part of entry, applying to most imports, is charged on wheat flour, bran and middlings, but not on wheat.

BRITISH GUIANA

Duty in dollars of British Guiana (4s 2d)

	British preferential General	British preferential essential
Wheat flour, bbl (196 lbs)	$1.20	$1.00
(The rate in Canadian flour is $0.91)		
Wheat, 196 lbs	.50	.25
Bran	.10	.25

There is a surtax of 25% of the duty on flour, and of 30% of the duty on wheat and bran.

Bill of entry tax is 2% ad valorem. "Drawback on bill of entry tax and customs duty paid to the extent of the amount of duty calculated at the British Preferential Tariff Rate on imports of flour.

An import license is required for these products.

CHILE

Chilean gold pesos

Wheat flour	0.35 per gross metric quintal
Bran	0.15 per gross metric quintal

Wheat—When the c.i.f. value of the wheat is 70 pesos or more per 100 kilos, it is free of duty; when its price is 48 pesos, the import duty is 0.75 gold peso per 100 kilos, and this rate of duty is increased 0.75 peso for each peso of decline in price.

Surtax is 0.15 gold peso per 100 kilos or fraction.

General import-sales tax is 20% of the duty-paid value on wheat and bran, and 1% on wheat flour.

All imports are subject to permit.

COLOMBIA

Duty in Colombian pesos*

	per 100 gross kilos
Wheat	0.06
Wheat flour	15.00
Bran (for feed)	1.00
Bran for human consumption	10.00

The Colombian importer must obtain an import permit before his order is placed abroad.

Wheat and wheat flour are classified in Group I in Colombia's import control system and pay an exchange tax of 15%. Bran is in Group I and pays a tax of 20%.

*Dutiable on gross weight.

ECUADOR

	Duty in sucres
Flour, gross weight	15.00
Flour, self-rising (legal wt.)	200.00
Wheat, gross weight	20.00
Bran, gross weight	5.00

A certificate of analysis is required for imported flour.

Surtaxes: 7% of duty, 7% of declared value, and 1½% ad val. (f.o.b.).

General sales tax is 1% ad val. (f.o.b.).

All imports require import permits.

Wheat is exempt from all consular fees, import taxes, sales taxes and port charges.

NETHERLAND GUIANA (SURINAM)

	Duty in florins
Flour, when packed in packages of 1 kilo or less, ad valorem (c.i.f.)	16%
Flour, otherwise packed	.025
Wheat and other grain	14%
Millfeed	Free

There is a surtax of 25% of the duties on all imports.

Permit restrictions and exchange control apply to imports into Netherland Guiana.

PARAGUAY

	Duty in guaranis
Wheat, gross weight	3.12
Wheat flour, gross weight	5.87
Wheat flour, cooked with yeast and the like for puddings, food preparations and the like	0.25
Corn meal, gross weight	7.64
Bran, gross weight	0.95

Surtax is 11% ad valorem, except on wheat and wheat flour, 5%.

PERU

	Duty in soles
Wheat flour, gross weight	6.00
Wheat, gross weight	1.50
Bran, gross weight	2.00

Surtaxes: 1% of declared value on all imports except rice, vermicelli, flour, lard, tea and wheat, 1% of declared value on all imports, 1% of declared value on all imports except certain foodstuffs (including wheat and wheat flour) and articles covered by international agreements, $0.10 (U. S. Cy.) per metric ton on imports of wheat and coal, and $2.70 per metric ton on imports of general merchandise through Callao; $1 per metric ton on all merchandise imported through other ports. A special tax of 1.41 soles per metric ton is imposed on all imported flour.

Additional regional taxes are collected, varying according to locality.

Note—40,000 metric tons of wheat per year from Chile allowed duty-free entry.

URUGUAY

	Duty in Uruguayan pesos
Wheat flour, gross weight	6.45
Wheat	3.35
Bran, gross weight	2.83

There is a surtax of 5% ad valorem, based on the c.i.f. value of wheat.

VENEZUELA

	Duty in bolivars
Wheat, 100 gross kilos	2.00
Wheat flour, 100 gross kilos	4.00
Bran, 100 gross kilos	4.00

Africa

ALGERIA

Same rates of duty as apply on similar products imported into France. Duties paid in francs.

The import duties, suspended since March 19, 1941, are still suspended on the following: Cereal flours, groats, semolinas, cereal grains, cleaned or husked, crushed grains, and bread-making grains, germs, flakes, except oat flakes.

Production Tax

Cereal flours—	
Intended for bread-making	Exempt
Not intended for bread-making, ad valorem	3%
Groats, semolinas, grains, cleaned or husked, crushed grains and bread-making grains, germs, flakes, except oat flakes, ad valorem	3%

EGYPT

Egyptian pound (1,000 milliemes)

Wheat—Based on the c.i.f. quotation for Australian wheat at Egyptian ports, in terms of the London exchange, when Australian wheat is quoted at 60 English shillings or less per metric ton, the duty is 945 milliemes per 100 kilos, gross; for each 1s advance in the quotation above 60s, the import duty is decreased on a varying scale by 20 or 25 milliemes; when the quotation is 100s or more, the duty is fixed at 100 milliemes.

Wheat Flour—Same as wheat duties, plus 450 milliemes for each category.

In addition to the import duty, there is a quay tax of one tenth of the duty, and an additional ad valorem duty of 7% of c.i.f. value. Municipal tax levied on total amounts paid as import duty, ad valorem duty and excise, on general merchandise: Alexandria, 1½%; Port Said, 2%; Suez, 1%.

MADAGASCAR

	ad valorem
Wheat, spelt and meslin and their flours	10%
Wheat bran and other residues, except germs	Exempt
Other farinaceous edible products	15%

The importation of wheat and flour is subject to permit.

Import duties have been temporarily suspended.

MOROCCO

	Rate of duty
Wheat, wheat flour, bran, ad valorem	**12½%**

In addition to the ad valorem import duty, there is a "gate tax" of 0.83 franc per gross kilo on wheat imported into French Morocco.

In Spanish Morocco, in addition to the ad valorem import duty, there is a discretionary consumption tax ranging from 0 to 0.12 peseta per kilo on imported wheat and from 0 to 0.20 peseta per kilo on imported flour.

In French Morocco, there is a stamp tax of 1% of the total customs duties.

In Spanish Morocco, there is a special consumption tax of 1% ad valorem on flour, except in Sanjurjo, where it is free of this tax.

Ad valorem rates are based on wholesale cash value of goods delivered at the custom house.

TUNISIA*

Import Duties—Cereal Flours

	ad valorem
Wheat flour, spelt and meslin, at the extraction rate of:	
80% and more	70%
60% inclusive to 80% exclusive	50%
Less than 60%	30%
Wheat—hard, soft and meslin	10%
Wheat groats, semolinas, grains, cleaned or husked, crushed grains and bread-making grains, germs, flakes	30%

Wheat bran, containing more than 10% flour follows the regime of flours according to kind.

Statistical tax—12 francs per 100 kilos of soft or hard wheat.

Customs formality tax—20 francs per 1000 kilos, gross or fraction thereof, with a minimum rate of 1% ad valorem.

Import control tax—Wheat, 3 francs; wheat flour, 3 francs 60; wheat semolina, 4 francs 50.

Imports are subject to permit.

*Trade in grain is on government to government basis.

UNION OF SOUTH AFRICA

	Per 100 lbs Maximum	Intermediate*	Minimum
Wheat—			
In the grain	3s 6d	2s 6d	2s 6d
Ground or otherwise prepared	5s 6d	4s 6d	4s 6d
Bran, wheaten	1s 3d	1s 3d	1s 0d

Wheat, wheat flour and meal: There is, in addition, a special customs duty per cental equal to the difference between 11s 3d for wheat and 18s 9d for wheat flour and meal, and the cost per cental to the importer at the port of importation (c.i.f., including customs duty); provided, the cost of the product per cental to the importer, free on board at port of shipment, shall be taken to be a sum not greater than the ordinary market price for export per cental at time of purchase, expressed in Union currency, of similar goods free on board at port of shipment.

*Applies to imports of these items from all countries.

Note: British preference in the regular and special duties on these items was eliminated under the General Agreement on Tariffs and Trade.

Asia and Australia

AUSTRALIA

Rates in Australian pounds per 100 lbs

	General	British preferential
Wheat	**5s 0d**	**Free**
Wheat flour	**8s 0d**	**Free**
Bran	1s 3d	9d

The preferential rates apply to imports from the United Kingdom and New Zealand, and on bran only from Canada.

There is also a primage duty of 10% ad valorem on such imports with two exceptions. New Zealand imports are exempt from primage and bran is only subject to a 5% ad valorem primage duty under the British Preferential.

Effective Dec. 1, 1939, importation was prohibited from all non-sterling areas, including Canada and Newfoundland.

INDIA

Wheat	Free
Wheat flour	Free
Bran, ad valorem	5%

Both wheat and flour are free of duty until further notice.

CHINA
(Communist Areas)

(Note—In view of the Communist domination of all major Chinese ports, there are given herewith pertinent provisions of an unofficial translation of the Communist provisional foreign trade controls. Consequently, the Department of Commerce cannot assume any responsibility for the accuracy of this information.)

Import Duty*—

	Ad valorem rate
Wheat	15%
Flour	10%
Bran	15%

Duty-Paying Value—

The basis used in ascertaining the prices of foreign goods is the average wholesale price at port of entry. In calculating the duty-paying value of imported goods, the same formula adopted by the Chinese Maritime Customs is used, viz.:

$$\frac{\text{Local average wholesale market price} \times 100}{100 + \text{duty rate} + 7}$$

To obtain the amount of duty payable the quotient resulting from the above is, in turn, multiplied by the duty rate. When the wholesale market price is lacking, the duty rate on imported commodities is calculated according to the c.i.f. price.

Consolidated Tax, etc.—

Where applicable, imported goods are also subject to the collection of the Consolidated Tax. Included under this tax are imports of flour, upon which the rate amounted to 3.5% ad valorem. (Recently, however, all Consolidated Taxes in the Shanghai area were increased; the new rates thereon have not, as yet, been received.) While the Communist provisional foreign trade regulations fail to mention port charges, which generally did not exceed 5% of the import duty, it may be

Uniform Flour Export Trade Terms

Note: Adopted by Flour Millers Export Assn. effective July 1, 1946.

(ALL IN CENTS PER CENTAL)

Country	Maximum Commission	Basic Terms	Optional Terms	Premium	Discount
Bolivia	10c	Cash or irrevocable credit before shipment	Sight draft (D. P.) (not recommended)	2%	
Brazil	10c	Sight Draft (D. P.)	Cash before shipment		1½%
Colombia	10c	Sight Draft (D. P.)	Cash before shipment		1½%
Costa Rica	10c	Sight Draft (D. P.)	Cash before shipment		1½%
Cuba	10c	Sight Draft (D. P.)	45 days date	1%	
			Cash before shipment or S/D vs. irrevocable credit		1 %
			60-day bank credit		½%
Dom. Republic	10c	Sight Draft (D. P.)	Cash before shipment		1½%
Ecuador	10c	Sight Draft (D. P.)	Cash before shipment		1½%
El Salvador	10c	Sight Draft (D. P.)	Cash before shipment		1½%
			45 days date	1%	
Guatemala	10c	Sight Draft (D. P.)	Cash before shipment		1½%
			45 days date	1%	
Haiti	10c	Sight Draft (D. P.)	Cash before shipment		1½%
			45 days date	1%	
Honduras	10c	Sight Draft (D. P.)	Cash before shipment		1½%
			45 days date	1%	
Nicaragua	10c	Sight Draft (D. P.)	Cash before shipment		2 %
Panama	10c	Sight Draft (D. P.)	Cash before shipment		1½%
			45 days date	1%	
Peru	10c	Sight Draft (D. P.)	Cash before shipment		1½%
Venezuela	10c	45 days date or Sight Draft (D. P.) except Ciudad Bolivar and Caripito	Cash before shipment		1½%
			60 days date	1½%	
		45 days date or Sight Draft (D. P.) in Ciudad Bolivar and Caripito	Cash before shipment		1½%
			60 days date	1½%	

"D. P." means "documents against payment."

"Sight Draft (D. P.)" means in fact arrival draft as most mills instruct bank hold draft for arrival of shipment.

"45 days date" or "60 days date" means from date of ocean B/L. If B/L not dated use approximate clearance date. In some markets "Cash before shipment" terms are not feasible (at present Brazil and Ecuador) but these optional terms are indicated in case situation changes.

"Cash before shipment" means payment in hand by mill or sight draft credit opened before shipment clears from seaboard. If cash or bank credit not received before shipment from seaboard, mill will draw Sight Draft (documents attached) at price applying to Sight Draft terms.

If draw 45 days date draft and buyer pays at sight (on first presentation) discount will be 1%, which is premium included in price. If buyer pays cash before shipment, discount will be as shown for Cash before shipment plus 1%. In Venezuela if draw 60 days date draft and buyer pays at sight (on first presentation) discount will be 1½%, which is premium included in price. If buyer pays cash before shipment, discount will be as shown for Cash before shipment plus 1½%.

presumed that these are still being collected.

*For the present, dutiable goods are subject to the same import duty rates contained in the Chinese Import Tariff of the Republic of China, as revised in August, 1948. However, the Communist authorities have refused to recognize the tariff concessions granted by China under the General Agreement on Tariffs and Trade (GATT) concluded at Geneva on Oct. 30, 1947.

HONG KONG

Import Duty—

No import duty is collected on imports of wheat, flour or bran into the British Crown Colony of Hong Kong.

Surcharges—

No surtaxes or port dues are collected on imports of these items.

FRENCH INDOCHINA

Duties are paid in piasters

Description of products:	Rate of import duty ad val.	Internal tax ad val.
Cereals—		
Wheat, spelt and meslin	15	Free
Flour of—		
Wheat	12	4
Rye, barley, oats, rice, maize and others	12	4
Groats, semolina, husked or pearled cereal grains, crushed grains and grits, flakes:		
From any kind of cereal	12	4
Bran, sharps and other residue of screening, milling and husking of cereal and of cereal grains:		
From any kind of cereal	3	Free

Assessment of customs duty is on the price c.i.f. port of duty.

In addition, there is assessed a statistical tax of 3 piasters per parcel, case, or other container and/or 1,000 kilos or cubic meters.

The exchange ratio between the piaster and other currencies is based on the Paris free market rate, presently (Dec. 1, 1949) fixed at 350 francs to the U.S. dollar, so that one piaster equals U.S. $0.0485†.

The Bureau of French Overseas Territories, located at 610 Fifth Ave., New York City, serves in an advisory capacity on foreign trade matters. Imports into Indochina are made according to an over-all plan, for which exchange is allocated by the Indochinese government authorities. Generally, dollar exchange is not granted for purchases in the U.S. except in the case of essential goods not procurable from France or other French Union sources.

INDONESIA

	Ad valorem, c.i.f., %
Wheat, corn, rye, barley and buckwheat	9
Wheat flour, wheat meal, in bags	15
Flour not of specified grains	15
Bran	9

Note: These duties include the surtax.

Importers are not permitted to place orders abroad until the exchange control authorities have authorized payment to be made.

ISRAEL

Israel pound (1,000 mils) follows pound sterling.

Import duties on wheat and flour vary according to value fixed periodically by director of customs. Wheat valued at 6,000 mils per ton or over is assessed 1,000 mils per ton import duty. From this maximum, the duty rate is increased 250 mils for each decrease of 250 mils in valuation to a minimum valuation of 3,250 mils, when the duty is 4,000 mils. The value of wheat for duty purposes is determined by the director of customs.

Flour, semolina and crushed or ground wheat valued at 11,500 mils per ton or over is assessed 3,000 mils per ton import duty. From this maximum valuation, the rate of duty is increased 250 mils for each decrease of 250 mils in valuation to a minimum valuation of 8,250 mils, when the duty is 7,500 mils. The director of customs has authority to determine the value of these products for duty purposes.

Rye flour valued at 8,000 mils per ton or over is assessed 3,500 mils per ton import duty. From this maximum valuation, the import duty is increased 250 mils for each decrease of 250 mils in valuation to a minimum valuation of 5,750 mils, when the import duty is 6,000 mils.

Bran .... Free

Imports are subject to import license.

JAPAN

Goods imported into Japan for use by the Occupation forces and goods imported by Licensed Agencies for Relief in Asia (LARA), Cooperative Agencies for Remittances to Europe and the East (CARE), and other relief parcels are not subject to duty. Duties on goods imported for other purposes, as stated in the Import Tariff of Japan, 1947, are given below. It is noted, however, that the Japanese Ministry of International Trade and Industry as the sole Japanese importer of all noncommercial shipments at present pays the import duty. Law No. 188 promulgated by the Japanese Government on Dec. 15, 1947, providing for the duty free import of wheat and wheat flour until Dec. 31, 1948, has been extended to permit the import of wheat and wheat flour duty free until Dec. 31, 1949. It is possible that this provision of duty free import of wheat and wheat flour may be further extended.

	*Duty per 100 kin
Wheat	2.50 yen
Wheat flour	4.10 yen
Wheat bran	Free

*100 kin equals 132.28 pounds.

BRITISH MALAYA

Wheat, flour and bran .... Free

Exchange is pay for imports from the U. S. is granted only in the case of essential goods not procurable within a reasonable length of time from British Empire sources.

NEW ZEALAND

Bran or Pollard—Free.

Wheat.—When the current domestic value at the port of export to New Zealand is 5s per bu of 60 lbs, the duty shall be 5d per bu of 60 lbs, provided that—

(a) When the current domestic value at the port of export to New Zealand exceeds 5s per bu of 60 lbs, the rate of duty shall be decreased by ½d (halfpenny) per bu of 60 lbs for every ½d (halfpenny) or fraction of ½d (halfpenny) by which the said current domestic value exceeds 5s, and

(b) When the current domestic value at the port of export to New Zealand is less than 5s per bu of 60 lbs, the rate of duty shall be increased by ½d (halfpenny) per bu of 60 lbs for every ½d (halfpenny) or fraction of ½d (halfpenny) by which the said current domestic value is less than 5s.

Wheat Flour (including wheat meal and similar preparations of wheat)—(a) When the current domestic value at the port of export to New Zealand is £13 per ton of 2,000 lbs, the duty shall be £1 13s per ton of 2,000 lbs.

(b) When the current domestic value at the port of export to New Zealand exceeds £13 per ton of 2,000 lbs, the rate of duty shall be decreased by 1s per 2,000 lbs for every 1s or fraction of 1s by which the said current domestic value exceeds £13.

(c) When the current domestic value at the port of export to New Zealand is less than £13 per ton of 2,000 lbs, the rate of duty shall be increased by 1s per 2,000 lbs for every 1s or fraction of 1s by which the said current domestic value is less than £13.

(d) Where wheat flour, including wheat meal and similar preparations of wheat, is imported in packages weighing less than 150 lbs, the current domestic value thereof shall be determined as if such goods had been imported in packages weighing 150 lbs or such other standard weight as the minister may approve.

(e) Notwithstanding anything in the preceding paragraphs of this tariff item, the current domestic value of wheat flour, including wheat meal and similar preparations of wheat, shall not in any case be deemed to exceed the free-on-board (f.o.b.) export cash price thereof by more than £1 5s per ton of 2,000 lbs.

All imports are subject to import license, and wheat flour is prohibited from importation. At present, no licenses are being issued for wheat, wheat flour, bran or pollard.

PAKISTAN

Wheat	Free
Wheat flour	1 r.—12 4/5 per cwt.

Wheat is free of duty until further notice.

REPUBLIC OF THE PHILIPPINES

United States articles, ie., products of the U.S. which do not contain more than 20%, by value, of foreign materials, enter the Philippines free of ordinary customs duties. Products which do not qualify as U.S. articles and imports originating in foreign countries other than the U.S. are subject to full Philippine tariffs. In the case of wheat, wheat flour, and bran, the following rates of duty are provided in the Philippine Tariff Act of 1909, as amended:

Wheat, in grain, per 100 kilos gross weight, 35¢; wheat in flour, per 100 kilos gross weight, 41¢; bran, 5% ad valorem.

All imports of these products from whatever country are subject to a tax equal to 3% of the gross selling price in the Philippines, and payable by the importer.

SYRIA AND LEBANON

	Paper piasters per 100 kilos ad valorem
Wheat, spelt, meslin and groats	10% (c.i.f. value)
Flour—	
From hard wheat	10%
From soft wheat	10%
Bran	10%

In addition to the import duty, there is a municipal tax of 1.5% ad valorem; landing charges (paid to steamship agencies) 8 to 11 Syro-Lebanese pounds per metric ton; harbor and handling charges (paid to port company) 8 to 12 piasters per 100 kilos; and a transit tax of 1.5% ad valorem.

The Syro-Lebanese pound divided into 100 piasters equal to $0.45 U.S. currency at the official rate; $0.24 U.S. at the open market rate.

FOREIGN WEIGHTS AND MEASURES

Equivalent in Avoirdupois

Argentine Republic—		
Ton, 1,000 kilos, equals	*2,204½	lb.
Hectare of land equals	2.471	acres
A "sack" of flour weighs	200	lb.
A "bag" of flour weighs	140	lb.
A barrel of flour weighs net	196	lb.
Russia—		
1 pood equals	36	lb.
10 poods equal 1 chetvert or	360	lb.
100 chetverts of wheat equal	72	qr.
100 chetverts of seed equal	88	qr.
100 chetverts of barley equal	85	qr.
100 chetverts of rye equal	74	qr.
100 chetverts of oats equal	88	qr.
France—		
1,000 kilogrammes equal	1	ton
218.2 kilogrammes equal	480	lb.
224.45 kilogrammes equal	496	lb.
1 quintal, 100 kilos, equals	220½	lb.
100 charges equal	190	qr.
1 hectolitre equals	2.8	bu.
Holland—		
1 last of wheat equals	10½	qr.
1 last of barley equals	10½	qr.
1 last of oats equals	19½	qr.
1 German last of wheat equals	9½	qr.
100 Egyptian ardebs of wheat equal	62½	qr.
816 Constantinople kilos equal	100	qr.
100 Galatz kilos equal	145	qr.
100 Ibrail kilos equal	157	qr.
4 Spanish fanegas of wheat equal about	1	qr.
355 Austrian stajas of wheat equal	100	qr.
472.81 Vienna metzen equal	100	qr.
1 Smyrna kilo equals	1	bu.
10 Norway maas—(maller—) equal	4.128	bu.
1 Vienna metze equals	1.7	bu.
1 Chilean fanega equals	156½	lb.
1 Chinese or Japanese picul equals	133⅓	lb.
1 Japanese koku equals	5.11	bu.
A quarter weighs—		
English (8 bu.)	480	lb.
California wheat	500	lb.
Other American wheat	480	lb.
Chilean wheat	480	lb.
South Russian wheat	492	lb.
American maize	480	lb.
Danubian maize	480	lb.
Danubian wheat	480	lb.
Odessa maize	492	lb.
Galatz maize	492	lb.
Barley	400	lb.
Oats varies from	304 to 336	lb.
Metric ton equals	2,204.6	lb.
A long ton equals	2,240	lb.
A short ton equals	2,000	lb.
100 kilos equal	220½	lb.
50 kilos equal	110¼	lb.

*In Argentine trade, is reckoned as 2,000 lb. †Long ton.

To reduce bushels of American maize (corn) to quarters (480 lb.) multiply by 7 and divide by 60. To reduce sacks of flour (280 lb.) to barrels (196 lb.) multiply by 10 and divide by 7. Reverse operation to change 196 lb. into 280 lb.

The weight of a barrel of flour is based on the old English "stone" of 14 lb.—14 stone being taken as a barrel. The sack has 20 stone; thus a 280-lb. sack is 20 14ths of a barrel, or, for convenience of figuring, we say 10-7ths. Bearing this in mind, it is easy to reduce sacks to barrels, or vice versa.

To reduce cwt. English (112 lb.) of flour to barrels (196 lb.), multiply by 4 and divide by 7.

Grain-Mill Products, General Statistics for the United States

Note: The 1947 Census is the first to be taken since 1939. Flour and meal industry comprises establishments primarily engaged in milling flour or meal from grain; prepared animal feed industry comprises establishments primarily engaged in manufacturing prepared feeds for animals and fowls. Cereal preparations industry comprises establishments primarily engaged in manufacturing breakfast foods and other cereal preparations from grain. Blended and prepared flour industry comprises establishments primarily engaged in the preparation of self-rising or blended flour from purchased flour.

Source: U.S. Bureau of the Census

(Money figures in thousands of dollars)

Industry and census year	Number of establishments	All employees: Number (average for the year)	All employees: Salaries & wages, total	Production and related workers: Number (average for the year)	Production and related workers: Wages, total	Value added by manufacture*	Cost of materials, fuel, electricity and contract work†	Value of products shipped‡
Total for grain-mill products—								
1947	4,266	153,237	$811,734	99,092	$516,129	$1,001,895	$4,220,844	$5,330,730
1939	3,746	73,211	89,159	59,632	34,608	339,961	914,600	1,260,464
1937	3,237	103,661	91,875	61,139	38,173	387,833	1,104,837	1,492,879
1931	2,513	61,946	74,494	43,016	48,011	269,163	1,063,493	1,332,676
1921	2,786	60,178	53,588	46,748	35,748	237,642	633,453	870,095
1911	2,374	***	***	28,510	48,581	204,841	736,964	940,904
1929	4,953	68,410	92,855	46,325	68,219	366,332	1,326,767	1,687,939
1927	4,619	60,882	81,589	45,188	57,226	302,830	1,016,616	1,368,384
Flour and meal—								
1947	1,243	35,416	115,946	29,722	85,680	419,468	2,192,078	2,611,543
1939§	1,143	25,875	48,276	24,771	28,176	143,882	606,961	749,843
1937	1,258	31,877	44,080	26,390	30,186	153,168	723,715	876,883
1931	1,181	33,806	41,468	28,495	27,196	130,867	716,123	853,219
1921	1,832	28,713	35,274	23,287	23,581	134,332	433,671	567,863
1931	2,412	***	***	23,848	27,286	136,809	461,093	598,941
1929	4,921	32,781	48,687	27,938	35,072	191,386	846,473	1,045,269
1927	4,635	40,128	38,791	28,942	37,468	176,949	973,711	1,148,785
1921**	4,314	42,775	41,493	31,848	39,709	172,826	1,125,570	1,298,613
1922	3,232	46,628	49,835	35,184	41,794	183,696	865,972	1,044,877
1921	3,450	46,137	48,626	35,278	43,143	184,830	995,348	1,179,748
1919	10,784	43,832	41,841	43,481	48,888	268,213	1,799,183	2,062,434
1914	18,744	33,468	45,882	38,716	34,583	188,410	762,179	877,685
1909	11,891	31,434	33,981	28,453	31,484	118,898	767,474	883,644
1904	10,831	46,630	37,178	28,119	18,822	83,083	618,871	713,633
1899	9,476	37,748	23,643	22,224	16,261	73,279	628,117	661,396
Prepared animal feeds—								
1947	2,858	65,347	143,301	40,288	93,679	394,336	1,736,027	2,130,363
1939	1,383	24,177	32,801	18,481	19,253	80,246	303,649	383,895
1937	1,136	19,190	34,456	14,387	15,839	76,746	338,695	415,311
1931	943	15,427	18,349	11,446	11,065	58,040	130,603	188,643
1923	710	13,240	13,439	8,781	7,468	38,273	112,970	151,243
1921	796	***	***	8,449	8,402	47,187	152,734	199,921
1929	750	14,164	23,490	10,133	13,831	74,833	327,820	402,653
1927††	447	13,276	17,475	7,633	8,793	48,117	344,676	390,793
Cereal preparations—								
1947	54	11,276	35,439	8,436	25,185	136,185	154,479	294,664
1939	70	8,851	12,647	5,464	8,617	78,248	58,034	136,283
1937‡‡	71	***	***	7,733	10,419	85,680	65,181	150,861
1935	119	8,204	11,231	7,896	8,216	64,248	82,633	146,881
1933	183	8,136	9,044	7,113	7,276	56,011	55,015	111,026
1931	111	***	***	7,014	9,095	73,154	68,437	141,583
1929	131	8,184	12,231	6,455	8,876	73,751	101,472	175,223
1927	77	7,219	11,872	6,020	6,417	63,516	91,748	155,263
1923	90	***	***	6,168	7,843	67,502	83,677	156,179
1923	93	7,427	16,135	6,410	7,878	48,287	84,458	132,745
1921	82	7,653	12,189	6,749	7,178	43,483	74,859	118,341
1919	104	10,474	14,268	7,634	8,609	61,266	117,856	179,123
1914§§	137	7,513	4,894	3,177	3,134	22,218	36,767	58,984
Blended and prepared flour—								
1947	133	3,064	8,807	2,312	5,110	22,368	53,155	75,523
1939	75	1,146	1,419	796	882	3,828	13,966	17,894
1937‖	41	***	***	486	273	3,909	8,725	12,634

***Not available.

*Value of products less cost of materials, supplies, fuel, electricity and contract work.

†Figures for years prior to 1935 do not include cost of contract work.

‡For 1947 and 1939, value of products shipped; for all other years, value of products made.

§Data for employees other than production workers reported by the "cereal preparations" and "blended and prepared flour" industries are not included in the figures for "all employees" for 1937. The figures do include, however, data for production and related workers reported by these industries.

‖The figures for 1939 include data for two establishments making soy flour. Although soy flour is now classified in the "soybean oil mills" industry, the data for these two establishments have been included in the 1939 figures for "flour and meal" to avoid disclosure of their figures.

**The figures for 1929-1935 are not strictly comparable with those for later years because they include data for establishments which make prepared animal feeds from grain ground in the same establishment. Such establishments have been classified in "prepared animal feeds" since 1937.

††The figures for years prior to 1937 are not sufficiently comparable with those for later years to be shown in this table because they do not include data for manufacturers of prepared feeds who grind the grain commercial.

‡‡The figures for 1937-47 exclude data for self-rising flour, whereas the figures for earlier years include data for this product. Value added in 1937, including data for self-rising flour, was $89.6 million.

§§Prior to 1914 "cereal preparations" was combined with "food preparations, not elsewhere classified."

‖‖The figures for 1937 are for self-rising flour only. Blended flour made from purchased flour was not classified as a manufactured product prior to 1937. No comparable figures are available prior to 1937.

Milling in Transit

Milling in transit is the practice of shipping a carload of a commodity from point A to point B, there unloading it and subjecting it to some process, after which reshipment is made to point C beyond at a through freight rate less than the combination of rates to and from point B—as would be applicable in the absence of the transit-stop provision.

The point at which the commodity originates in the first instance is known as the "point of origin." The point at which the stop is made for processing is the "transit point." The point to which reshipment is later made from the transit point is the "final destination."

When the commodity moves from its point of origin to the transit point the local freight rate thereto is paid, and when reshipment is ultimately made beyond, from B to C, the rate paid is the difference between the rate already paid from A to B and the through rate from A to C. This difference is less than the flat local rate from B to C, and is known as the "transit balance rate."

For example, if the inbound freight rate on wheat from its origin to the milling point is 15¢ a 100 lb., and the freight rate on flour from the milling point to final destination is 18¢ (the combination of rates totaling 33¢ would be paid to the miller at the milling point in the absence of the transit arrangement.

But the through rate on flour from the point of origin of the wheat to the final destination of the flour is only 25¢. So the transit permits using this through rate in lieu of the combination of rates totaling 33¢.

The processor at the milling point pays the 15¢ on arrival of the wheat from its origin point. After the wheat is ground and the flour is shipped to the final destination he simply pays the difference between the inbound rate of 15¢ and the through rate of 25¢, or the transit-balance rate of 10¢.

This transit practice seems to have started in 1879 at Nashville, Tenn., where a practice of rebilling or reshipping grain under its provisions was inaugurated. From that beginning it has grown to a point where it has long been a universal practice in the railroad transportation of grain

Quantity and Value of Grain-Mill Products Industries, 1947 and 1939

Note: Total production and value of products for flour milling industry, blended and prepared flour, cereal preparations and prepared animal feeds for 1947 and 1939. **Source: Bureau of the Census**

(All figures in thousands)

Product and unit of measure	1947 Total shipments and interplant transfers Quantity	1947 Total shipments and interplant transfers Value f.o.b. plant	1939 Production for sale Quantity	1939 Production for sale Value f.o.b. plant
Wheat flour, plain, total*, 100-lb. sack	**171,804**	**$1,309,176**	**180,906**	**$410,704**
White, 100-lb. sack	154,318	1,241,146	167,947	385,481
Whole wheat, 100-lb. sack	8,714	26,814	6,287	8,889
Semolina, 100-lb. sack	9,184	40,918	6,662	15,423
Other, including farina, 100-lb. sack	3,588	19,498	†	†
Blended and prepared flour, total, 100-lb. sack	**47,374**	**365,187**	**35,845**	**75,300**
Plain blended, 100-lb. sack	1,558	13,818	1,428	3,331
Phosphated, 100-lb. sack	19,679	159,812	7,279	16,843
Self-rising, 100-lb. sack	14,904	101,608	15,583	32,060
Other prepared flour (pancake, etc.), 100-lb. sack	10,573	110,019	5,687	24,182
Blended and prepared flour, made in flour mills, 100-lb. sack	**46,006**	**373,576**	**19,399**	**47,600**
Plain blended, 100-lb. sack	1,449	16,719	790	1,617
Phosphated, 100-lb. sack	19,433	155,734	5,628	14,351
Self-rising, 100-lb. sack	111,951	105,488	10,474	14,891
Other prepared flour (pancake, etc.), 100-lb. sack	8,243	85,256	1,497	6,701
Blended and prepared flour, not made in flour mills†, 100-lb. sack	**7,378**	**91,611**	**6,446**	**27,800**
Plain blended, 100-lb. sack	107	3,139	638	1,584
Phosphated, 100-lb. sack	244	4,195	642	1,582
Self-rising, 100-lb. sack	2,039	17,746	2,798	7,165
Other prepared flour (pancake, etc.), 100-lb. sack	4,154	65,565	2,468	17,467
Wheat bran, shorts and middlings, ton	3,824	318,452	4,592	89,613
Corn meal, total, 100-lb. sack	**11,838**	**65,094**	**14,187**	**32,506**
Whole, 100-lb. sack	8,897	35,828	***	***
Degermed, 100-lb. sack	2,941	32,064	***	***
Other grain-mill products, not elsewhere classified, total		**132,417**		***
Rye flour, 100-lb. sack	3,169	15,128	2,649	4,082
Rye milfeed, ton	23	1,171	***	***
Corn grits and hominy for human consumption, 100-lb. sack	4,842	24,629	3,276	3,528
Corn grits and flakes for brewers' use, 100-lb. sack	8,811	37,649	4,035	5,410
Hominy feed and other corn milling by-products, ton	149	37,257	***	***
Oat milfeed and other oat milling by-products, ton	237	11,346	***	***
Other grain-mill products‖		5,717		1,833
Grain-mill products, not specified to kind		21,690		4,454
Poultry and livestock feeds, total, ton	**77,298**	**1,901,504**	***	***
Grain (ground, rolled, chopped or crimped), ton	1,584			
Poultry feeds:—				
All-scratch feeds, ton	1,758			
Chicken mash and pellets, under 15% protein—				
Layer and breeder, ton	4,314			
Starter, ton	860			
Grower, ton	1,173			
Broiler, ton	1,123			
Turkey mash and pellets, under 15% protein, ton	547			
Other poultry feeds, under 15% protein, ton	812			
Supplements and concentrates, 15% protein and over, ton	832		***	
Livestock feeds:—				
Dairy, under 15% protein, ton	4,834			
Dairy, 15% protein and over, ton	898			
Beef and range cattle, ton	139			
Sheep and goat, ton	71			
Pig and hog, under 15% protein, ton	773			
Pig and hog, 15% protein and over, ton	797			
Horse and mule, ton	334			
Other livestock feeds**, ton	767			
Poultry and livestock feeds, kind not specified, ton	447			
Dog and cat food, total, lb	**1,107,649**	**96,150**	**731,095**	**33,667**
Canned, lb	427,137	34,319	491,276	22,948
Biscuits, pellets and meal, lb	680,712	57,870	239,717	10,719
Miscellaneous feeds, total		**86,543**		***
Mineral mixtures, lb	190,798	14,257	415,434	7,758
Alfalfa meal, total, ton			418,128	8,083
Sun-cured, ton	397	16,944	***	***
Dehydrated, ton	723	34,311	***	***
Other prepared feeds, not elsewhere classified††		18,030	***	***
Prepared feeds, kind not specified		2,959,549		
Cereal preparations, total		**321,756**		**108,458**
Ready to serve, total, lb	715,147	149,134	576,483	87,083
Corn, lb	297,346	35,130	***	***
Wheat, lb	316,631	66,069	299,129	37,661
Other grains and mixed grains, lb	100,170	12,935	***	***
To be cooked before serving, total, lb	773,954	68,893	713,123	16,437
Corn, lb	2,858	276	***	***
Oats, lb	104,437	42,918	***	***
Wheat, lb	185,987	19,818	193,153	10,483
Other grains and mixed grains, lb	199,493	5,420	***	***
Cereal coffee substitute	***	5,771	***	***
Cereal preparations, kind not specified		158	***	***

***Not available.

*Total production, including the quantity produced and used in the same mills in the manufacture of blended and prepared flours amounted to 101.1 million sacks in 1947.

†Included with white flour.

‖Includes a small quantity of prepared flour, kind not specified.

†Includes production in cereal plants, largely from purchased flour.

‖Includes buckwheat and corn flour.

**Includes feed for rabbits, milk, foxes, laboratory animals, etc.

††Includes crushed oyster shells, egg shells, dried citrus pulp and miscellaneous prepared materials used as feeds or feed adjuncts.

‖‖Includes total value ($19,873,000) of 488 establishments classified in the "prepared animal feeds" industry, for which no detailed breakdown of sales was tabulated.

and its products. The same principle is applied to many other commodities.

The theory of it is to give to the shipper or processor the right to stop a shipment at an intermediate point for storage or to change the form or substance of the commodity shipped, and then ready to deal further at a total freight charge not exceeding that applicable had the shipment not been stopped.

The further theory is that the movements to and from the transit or process ing point are in fact parts of a single continuous transaction. While the freight is stopped at the transit point, the continuous movement is merely suspended temporarily, the intention of the shipper being to forward the goods to their ultimate destination.

The universal application of transit in connection with freight rates on grain and grain products has resulted from the policy of equalizing transportation costs of various processors—whether located in the wheat fields where the grain is produced, at the final destinations where the grain or its products are consumed, or at points intermediate between the grain fields and points of consumption, in the reasonably normal flow of the traffic.

It has made competitive many hundreds of processing points that would otherwise be non-competitive—and has thus benefited the producers of grain and the users of grain and its products, as well as the processors.

U.S. Grain-Mill Products Industries, Detailed Statistics, 1947

Note: Detailed statistics for flour milling, blended and prepared flour, cereal preparations and prepared animal feeds for 1947. **Source: U.S. Bureau of the Census**

(Money figures in thousands of dollars)

Item	Industry: Flour and meal	Prepared animal feeds	Cereal preparations	Blended and prepared flour
All establishments—				
Number of establishments	1,340	2,659	60	123
All employees:				
Number (aver. for the year)	38,458	55,347	11,276	3,664
Salaries and wages, total	$116,940	$143,391	$30,489	$8,607
Production & related workers:				
Number (aver. for the year)	30,722	46,266	8,496	2,313
Man-hours, total, thousands	74,413	92,751	19,849	4,857
Wages, total	$85,668	$80,379	$20,168	$5,115
Value added by manufacture	$410,408	$394,336	$130,188	$23,369
Establishments reporting detailed statistics—				
Number of establishments	968	2,221	84	123
All employees:				
Number (aver. for the year)	38,506	53,653	11,276	3,664
Salaries and wages, total	$117,442	$139,484	$30,489	$8,607
Production & related workers:				
Number (aver. for the year)	29,781	38,439	8,496	2,313
Man-hours, total, thousands	72,839	88,995	19,849	4,857
Wages, total	$84,294	$80,834	$20,168	$4,110
Value added by manufacture	$408,833	$387,876	$130,188	$23,343
Number of employees for pay period ended nearest Oct. 15:				
All employees	38,651	54,134	11,466	3,326
Male	30,350	45,409	7,439	2,125
Female	8,301	8,719	4,027	1,186
Production & related workers	28,708	38,634	8,631	2,483
Male	28,308	37,483	8,304	1,559
Female	1,399	1,150	3,327	924
Force account construction workers	339	653	3	.....
Administrative, supervisory, sales, and all other	8,722	14,875	2,835	837
Male	6,727	11,651	2,412	676
Female	1,995	3,222	710	261
All employees, number by month:				
January	37,882	53,966	11,421	3,378
February	37,738	54,804	11,184	3,139
March	37,833	53,869	11,089	3,041
April	37,706	51,304	11,055	2,949
May	37,186	53,111	10,791	2,764
June	37,897	55,764	10,835	2,794
July	38,909	56,127	11,164	3,013
August	38,556	55,896	11,964	3,811
September	38,651	56,164	12,389	3,835
October	39,481	54,171	11,480	3,320
November	39,473	52,842	11,238	3,391
December	38,559	53,118	10,611	3,393
Cost of materials, fuel, electricity and contract work	$1,885,015	$1,713,816	$344,479	$83,155
Materials, parts, containers and supplies	1,673,974	1,596,219	131,796	51,833

Item	Industry: Flour and meal	Prepared animal feeds	Cereal preparations	Blended and prepared flour
Establishments reporting detailed statistics— Continued—				
Fuels, total	$3,811	$4,668	$1,679	$126
Bituminous coal	1,143	784	834	33
Anthracite	79	143	108	1
Coke	4	24	4	.....
Fuel oils	1,991	1,877	181	86
Gas	482	1,178	147	16
Other fuels	183	659	86	1
Purchased electric energy	5,811	7,663	1,196	151
Contract and commission work	119	1,891	1	16
Value of inventories:				
Beginning of year, total	$278,918	$191,924	$38,667	$11,144
Finished products	37,283	44,694	5,938	2,143
Materials, supplies and work in process	241,595	137,238	32,828	9,003
End of year, total	271,493	208,664	32,413	11,732
Finished products	47,891	55,468	6,898	2,584
Materials, supplies and work in process	223,602	153,476	25,525	9,148
Expenditures for plant and equipment:				
New plant and equipment	$27,784	$34,781	$3,842	$1,856
Construction and major alterations of fixed plants	15,661	14,794	969	737
Buildings	15,194	13,827	649	637
Other construction	467	1,177	306	80
Machinery and equipment	12,183	20,687	2,923	1,119
Production machinery and equipment	12,013	14,766	2,732	868
Other machinery and equipment	2,170	5,299	291	341
Used plant and equipment and land	900	1,838	31	53
Number of highway-type motor vehicles owned or leased:				
Trucks	1,687	6,062	164	141
By manufacturer's rated capacity:				
Under 1½ tons	422	1,363	37	37
1½ tons	807	2,805	63	43
Over 1½ tons and less than 7½ tons	438	1,163	39	28
7½ tons and less than 5 tons	19	171	4	19
5 tons and over	133	323	3	14
By body type:				
Van	421	866	4	43
Stake or platform	779	3,314	67	37
Panel or light-delivery	365	894	37	42
All other trucks	139	1,237	15	9
Truck tractors	490	825	7	6
Trailers and semitrailers	143	1,026	7	8

Grain-Mill Products Statistics by Size of Establishment

Note: Number of establishments and employees and value added by manufacture for the flour and meal, prepared animal feeds, cereal preparations and blended and prepared flour industries. **Source: U.S. Bureau of the Census**

(Money figures in thousands of dollars)

Industry and item	Total, all establishments	Establishments with an average of: 1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees	500-999 employees	1,000-2,499 employees	2,500 employees & over
Flour and Meal—											
Number of establishments	1,340	695	324	143	109	110	57	16	6	.....	.....
Number of employees (aver. for year)	38,458	1,916	1,485	1,921	3,619	8,067	12,806	5,613	3,651	.....	.....
Value added by manufacture	$410,408	$4,614	$6,910	$11,149	$24,877	$66,953	$132,979	$83,346	$38,314	.....	.....
Prepared animal feeds—											
Number of establishments	2,659	402	613	514	444	121	84	13	1	1	.....
Number of employees (aver. for year)	55,347	2,136	4,802	7,194	13,451	8,139	12,852	7,277	*	*	.....
Value added by manufacture	$394,336	$11,363	$21,795	$47,124	$87,894	$67,611	$106,734	$38,323	*	*	.....
Cereal preparations—											
Number of establishments	84	17	10	7	9	5	7	3	3	3	1
Number of employees (aver. for year)	11,276	44	61	111	264	353	1,196	1,494	*	5,733	*
Value added by manufacture	$130,188	$273	$361	$1,245	$3,163	$3,956	$18,336	$64,938	*	$37,150	*
Blended and prepared flour—											
Number of establishments	123	49	29	10	17	6	6	2	.....	.....	.....
Number of employees (aver. for year)	3,664	127	197	266	558	354	1,705	*	.....	.....	.....
Value added by manufacture	$23,369	$746	$1,148	$1,632	$1,104	$1,371	$13,734	*	.....	.....	.....

Costs, Wages, Value of Grain-Mill Products Industry by Divisions & States

Note: General statistics for flour milling, blended and prepared flour, cereal preparations and prepared animal feeds by dividends and states. **Source: U.S. Bureau of the Census**

(Money figures and man-hours in thousands)

Industry, division and state	Number of establishments	All employees: Number (average for the year)	All employees: Salaries and wages, total	Production & related workers: Number (average for the year)	Production & related workers: Man-hours, total	Production & related workers: Wages, total	Value added by manufacture	Cost of materials, fuel, electricity and contract work	Value of products shipped	Expenditures for new plant and equipment
Flour and meal, total¹	**1,243**	**39,450**	**$118,960**	**30,722**	**74,417**	**$81,680**	**$416,460**	**$2,161,875**	**$2,511,342**	**$27,704**
Northeast	102	3,373	10,967	2,731	5,424	8,518	52,268	241,265	292,261	981
New York	40	2,677	8,826	1,967	4,808	6,842	47,241	211,181	258,442	862
East North Central	232	6,681	20,128	4,136	12,056	14,681	60,494	303,812	364,310	13,443
Illinois	66	2,470	8,486	1,248	3,247	6,452	33,721	138,434	172,155	7,760
Michigan	47	889	2,717	650	1,486	1,796	6,466	23,690	29,554	3,082
Wisconsin	17	536	1,486	424	911	1,072	4,084	24,110	28,474	273
West North Central	236	13,487	43,916	10,844	27,191	32,712	167,128	876,798	1,024,128	6,660
Minnesota	53	3,496	12,479	2,916	7,615	8,494	40,811	276,873	310,894	1,735
Missouri	53	3,116	9,611	2,756	6,049	7,464	36,096	166,711	221,805	2,149
North Dakota	9	498	1,558	385	1,027	1,199	7,326	21,469	28,795	187
Nebraska	30	1,187	4,061	842	1,969	3,246	12,892	60,902	73,896	474
Kansas	69	4,335	13,816	3,475	8,849	9,696	55,623	202,263	257,906	2,090
South Atlantic	273	7,659	8,101	3,299	5,164	4,140	18,068	63,352	181,440	893
Maryland	29	462	1,226	360	879	841	4,994	21,235	26,233	114
East South Central	185	2,442	5,429	2,064	4,852	4,066	18,437	81,434	99,871	1,139
Tennessee	29	1,213	2,664	1,001	2,211	1,954	8,882	43,063	51,965	283
West South Central	75	4,879	14,743	3,886	8,868	9,713	50,209	245,696	295,905	1,919
Texas	37	3,053	9,113	2,194	5,261	5,620	29,961	154,377	184,332	1,124
Mountain	73	2,109	6,587	1,554	4,026	4,769	17,767	99,776	117,529	1,021
Montana	13	415	1,228	319	807	1,035	5,849	21,270	27,118	224
Idaho	13	221	858	160	448	714	2,903	15,890	18,793	129
Utah	21	481	1,616	318	819	1,003	4,296	24,168	28,464	279
Pacific	47	3,157	11,593	2,494	5,824	8,859	35,875	169,102	204,977	2,416
Washington	17	1,375	5,897	1,155	2,717	4,349	18,353	81,452	100,786	1,209
Oregon	17	495	2,192	879	1,567	2,047	11,574	43,688	55,289	425
California	13	487	2,914	871	1,240	2,175	7,948	40,764	48,712	787
Blended and prepared flour, total¹	**122**	**3,004**	**8,807**	**2,212**	**4,557**	**5,110**	**23,369**	**52,185**	**75,553**	**1,056**
Northeast	26	1,262	3,818	1,100	1,776	2,604	10,621	26,178	36,799	440
East North Central	15	457	2,074	288	639	764	4,894	9,226	14,120	134
Ohio	5	14	180	18	91	121	607	1,414	2,021	10
West North Central	9	89	416	91	127	184	1,148	2,263	3,412	98
South	49	829	1,705	674	1,579	1,210	3,412	15,496	18,910	240
Texas	8	158	327	137	299	254	893	2,048	2,930	24
West	23	287	799	212	421	347	2,572	4,700	7,272	402
Cereal preparations, total¹	**64**	**11,776**	**30,686**	**9,496**	**19,540**	**23,160**	**130,188**	**154,478**	**284,666**	**3,847**
New England	2	111	356	75	151	166	708	722	1,430	29
Middle Atlantic	12	1,903	5,396	1,648	3,643	4,427	21,876	20,276	42,151	760
East North Central	11	6,679	18,949	5,532	10,939	15,154	79,743	74,404	154,147	2,463
West North Central	11	2,275	8,128	1,943	4,263	4,932	24,477	53,018	77,495	499
South	8	103	224	77	201	138	1,149	2,060	3,214	59
West	14	215	585	173	348	411	2,296	2,983	5,279	47
Prepared animal feeds, total¹	**2,680**	**55,347**	**$143,361**	**40,366**	**92,751**	**$91,578**	**$394,736**	**$1,736,027**	**$2,130,763**	**$34,791**
New England	65	1,879	4,978	1,435	3,188	3,481	15,200	88,965	104,196	1,435
Middle Atlantic	374	8,288	24,818	6,164	14,134	16,818	73,317	382,612	454,946	3,699
New York	147	5,058	16,528	3,854	8,554	11,146	51,632	280,408	331,441	2,824
New Jersey	33	922	2,450	534	1,581	1,880	8,996	25,365	32,281	277
Pennsylvania	174	2,319	5,834	1,784	4,235	3,884	14,768	76,818	91,208	695
East North Central	531	11,828	32,547	7,118	18,162	17,810	81,238	357,748	438,987	7,845
Ohio	137	3,107	8,537	1,358	3,247	6,061	35,852	152,848	153,889	1,356
Indiana	120	1,882	4,651	1,311	3,963	3,253	11,459	40,416	76,824	1,242
Illinois	137	5,457	15,192	3,149	3,229	3,893	36,392	113,940	150,142	3,288
West North Central	494	10,082	24,848	7,168	17,999	17,314	76,118	256,789	332,907	8,081
Minnesota	103	1,747	4,519	1,337	2,960	3,157	15,112	58,953	73,865	1,422
Iowa	121	2,691	4,904	1,563	3,525	3,190	17,581	49,832	66,213	1,268
Missouri	114	2,729	6,631	2,018	4,799	4,542	22,188	89,321	111,609	2,065
South Atlantic	344	5,722	12,863	4,417	10,339	8,220	33,670	162,826	196,496	3,862
Virginia	49	1,095	2,548	773	1,906	1,613	5,813	31,659	37,463	731
North Carolina	57	1,395	2,473	1,165	3,645	2,092	8,227	37,739	45,966	499
South Carolina	16	314	693	259	815	578	1,892	8,590	10,191	78
Georgia	22	913	1,867	738	1,676	1,164	5,495	22,737	28,235	587
East South Central	110	4,171	9,565	3,522	7,663	6,658	27,345	115,502	142,847	2,681
Kentucky	28	554	1,298	475	1,084	1,013	3,341	19,439	22,780	219
Tennessee	52	2,124	4,289	1,608	3,491	3,582	13,534	68,714	82,248	1,022
Alabama	17	917	2,545	793	1,892	1,892	4,704	22,922	27,738	831
Mississippi	13	548	1,053	445	1,031	863	3,748	16,337	20,081	512
West South Central	207	5,175	11,366	4,028	8,419	7,596	25,661	117,905	153,569	3,297
Arkansas	55	694	1,247	481	1,050	725	3,244	19,382	22,626	206
Texas	114	3,228	7,145	2,425	5,759	4,727	18,591	81,366	99,977	1,427
Mountain	111	1,738	4,319	1,164	3,474	3,211	12,511	55,941	68,452	1,283
Idaho	19	195	482	119	369	389	1,324	4,217	5,541	152
New Mexico	11	117	234	103	228	181	808	781	1,589	16
Pacific	509	8,452	18,948	4,781	10,273	13,087	47,382	190,183	237,565	4,942
California	393	4,828	14,424	3,312	7,436	8,759	37,711	148,938	186,649	3,787

¹For each producing state not shown separately in the table there are shown below the number of establishments and, in parentheses, the number of employees for states represented by three or more companies, when possible.

Flour and meal: Northeast, New Hampshire, 1; Rhode Island, 2; Connecticut, 2; New Jersey, 1; Pennsylvania, 145 (721); **East North Central**, Ohio, 66 (1,141); Indiana, 46 (1,204); **West North Central**, Iowa, 16 (460); South Dakota, 6 (81); **South Atlantic**, Delaware, 4 (16); District of Columbia, 1; Virginia, 105 (835); West Virginia, 7 (111); North Carolina, 78 (688); South Carolina, 23 (182); Georgia, 28 (155); Florida, 1; **East South Central**, Kentucky, 74 (838); Alabama, 13; Mississippi, 2; **West South Central**, Arkansas, 2; Louisiana, 1; Oklahoma, 32 (1,127); **Mountain**, Wyoming, 2; Colorado, 12 (648); New Mexico, 7; Arizona, 4 (34).

Blended and prepared flour: Northeast, Massachusetts, 2; New York, 17 (1,066); New Jersey, 1; Pennsylvania, 4 (149); **East North Central**, Indiana, 1; Illinois, 11 (357); Michigan, 2; Wisconsin, 1; **West North Central**, Minnesota, 1; Iowa, 1; Missouri, 4 (72); Nebraska, 1; **South**, Maryland, 2; Virginia, 2; North Carolina, 5 (11); South Carolina, 2; Georgia, 3 (27); Florida, 1; Kentucky, 4 (181); Tennessee, 9 (287); Alabama, 7; Mississippi, 2; **West**, Colorado, 1; Arizona, 1; Utah, 1; Washington, 1; California, 14 (275).

Cereal preparations: New England, Vermont, 1; Massachusetts, 1; **Middle Atlantic**, New York, 8 (1,541); New Jersey, 1; Pennsylvania, 3; **East North Central**, Ohio, 4 (487); Illinois, 4 (1,818); Michigan, 3 (4,784); **West North Central**, Minnesota, 4 (237); Iowa, 2; Missouri, 2; Nebraska, 1; Kansas, 1; **South**, North Carolina, 1; South Carolina, 1; Kentucky, 2; Tennessee, 1; Arkansas, 1; Louisiana, 1; Oklahoma, 1; **West**, Montana, 1; Colorado, 1; Arizona, 1; Washington, 2; Oregon, 1; California, 4 (147).

Prepared animal feeds: New England, Maine, 4 (61); New Hampshire, 6 (141); Vermont, 17 (458); Massachusetts, 27 (822); Connecticut, 11 (216); **East North Central**, Michigan, 84 (518); Wisconsin, 83 (821); **West North Central**, North Dakota, 12 (31); South Dakota, 14 (141); Nebraska, 111 (1,441); Kansas, 137 (1,885); **South Atlantic**, Delaware, 12 (224); Maryland, 55 (847); West Virginia, 18 (241); Florida, 24 (791); **West South Central**, Louisiana, 14 (475); Oklahoma, 44 (841); **Mountain**, Montana, 9 (81); Wyoming, 2; Colorado, 44 (794); Arizona, 12 (363); Utah, 22 (316); Nevada, 4; **Pacific**, Washington, 56 (748); Oregon, 51 (873).

Definitions and Standards of Identity for Flour

Definitions and standards of identity for wheat flour and related products were promulgated in 1941 by the Federal Security Agency, effective Jan. 1, 1942, under the Federal Food, Drug and Cosmetic Act of 1938. Previously it had been the responsibility of the Secretary of Agriculture to provide standards of identity for flour under the Federal Food and Drug Act of 1906, but standards thus established were informal and without the force and effect of law. The act of 1938 not only broadened the government's pure food activities but greatly enlarged its regulatory powers. The definitions and standards of identity were amended in 1943 to cover the enrichment of flour, and were again amended, effective Oct. 21, 1948, legalizing the use of potassium bromate in flour regardless of the protein content of the flour. Effective Feb. 25, 1949, chlorine dioxide was made an optional ingredient in substitution for nitrogen trichloride (Agene), one of which is prohibited after Aug. 1, 1949.

The definitions and standards of identity for wheat flour, as amended, are as follows:

Section 15.99. **Flour, white flour, wheat flour, plain flour; identity; label statement of optional ingredients.** (a) Flour, white flour, wheat flour, plain flour, in the food prepared by grinding and bolting cleaned wheat other than durum wheat and red durum wheat, to compensate for any natural deficiency of enzymes, malted wheat, malted wheat flour, malted barley flour, or any combination of two or more of them, may be used; but the quantity of malted barley flour so used is not more than 0.25%. One of the cloths through which the flour is bolted has openings not larger than those of woven wire cloth designated "149 micron (No. 100)" in Table I of "Standard Specifications for Sieves," published March 1, 1946, in L. C. 584 of the U. S. Department of Commerce, National Bureau of Standards. The flour is freed from bran coat, or bran coat and germ, to such extent that the per cent of ash therein, calculated to a moisture-free basis, is not more than the sum of one twentieth of the per cent of protein therein, calculated to a moisture-free basis, and 0.25. Its moisture content is not more than 15%. Unless such addition conceals damage or inferiority of the flour or makes it appear better or of greater value than it is, one or any combination of two or more of the following optional bleaching ingredients may be added in a quantity not more than sufficient for bleaching or, in case such ingredient has an artificial aging effect, in a quantity not more than sufficient for bleaching and such artificial aging effect:

(1) Oxides of nitrogen.
(2) Chlorine.
(3) Nitrosyl chloride.
(4) Chlorine dioxide.
(5) One part by weight of benzoyl peroxide mixed with not more than six parts by weight of one or any mixture of two or more of the following: potassium alum, calcium sulfate, magnesium carbonate, sodium aluminum sulfate, dicalcium phosphate, tricalcium phosphate, starch, calcium carbonate.

(b) When any optional bleaching ingredient is used, the label shall bear the word "Bleached." Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the word "Bleached" shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter; except that where such name is a part of a trademark or brand, other written, printed, or graphic matter, which is also a part of such trademark or brand, may so intervene if the word "Bleached" is in such juxtaposition with such trademark or brand as to be conspicuously related to such name.

(c) For the purposes of this section:

(1) Ash is determined by the method prescribed in the book "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," 5th edition, 1940, page 113, under "Method I —Official." (Ed. note: 6th Ed., 1945, p. 124.) Ash is calculated to a moisture-free basis by subtracting the per cent of moisture in the flour from 100, dividing the remainder into the per cent of ash, and multiplying the quotient by 100.

(2) Protein is 5.7 times the nitrogen as determined by the method prescribed in such book on page 16, under "Kjeldahl-Gunning-Arnold Method — Official." (Ed. note: 6th Ed., 1945, p. 17.) Protein is calculated to a moisture-free basis by subtracting the per cent of moisture in the flour from 100, dividing the remainder into the per cent of protein, and multiplying the quotient by 100.

(3) Moisture is determined by the method prescribed in such book on page 111, under "Vacuum Oven Method — Official." (Ed. note: 6th Ed., 1945, p. 122.)

Sec. 15.16. **Enriched flour; identity; label statement of optional ingredients.** Enriched flour conforms to the definition and standard of identity, and is subject to the requirements for label statement of op-

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WHEAT FLOURS

WINGOLD BAY STATE WINGOLD SPECIAL
WINONA STRONGFELLOW
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BAKERS FLAVOR BASCO
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GOLDEN TIGER *(High-Gluten)*
BAY STATE *(High-Gluten)*
WHOLE WHEAT *(Fine-Medium-Coarse)*

RYE FLOURS

WHITE RYE
DARK RYE
MEDIUM RYE
PURE LIGHT RYE
SPECIAL MEDIUM RYE
RY-DO, *Dark and Light*
RYE MEAL *(Coarse-Medium-Fine)*

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MILLERS OF HARD SPRING WHEAT AND RYE FLOURS

Ohio Soft Wheat Flours

from Washed Wheat

Straights, Cake, Pastry,
Whole Wheat

Soft Wheat Family
Blended Family

Table Corn Meal

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Established 1868

Columbus, Ohio

tional ingredients, prescribed for flour by Section 15.90, except that:

(a) It contains in each pound not less than 2.9 milligrams and not more than 4.5 milligrams of thiamine, not less than 1.2 milligrams and not more than 1.8 milligrams of riboflavin, not less than 18.0 milligrams and not more than 24.0 milligrams of niacin or niacin amide, not less than 13.0 milligrams and not more than 16.5 milligrams of iron (Fe);

Note: As amended July 1, 1943; 8 F.R. 8115. (The above riboflavin requirement, after postponement, 8 F.R. 6171, 7 F.R. 3844, 8 F.R. 3188, became effective Oct. 1, 1943, 8 F.R. 8115.)

(b) Vitamin D may be added in such quantity that each pound of the finished enriched flour contains not less than 250 U. S. P. units and not more than 1,000 U. S. P. units of vitamin D;

(c) Calcium may be added in such quantity that each pound of the finished enriched flour contains not less than 500 milligrams and not more than 875 milligrams of calcium (Ca), except that enriched flour may be acidified with monocalcium phosphate irrespective of the minimum limit for calcium (Ca) herein prescribed;

(d) It may contain not more than 5% by weight of wheat germ or partly defatted wheat germ; and

(e) In determining whether the ash content complies with the requirements of this section allowance is made for ash resulting from any added iron or salts of iron or calcium.

Iron and calcium may be added only in forms which are harmless and assimilable (the substances referred to in paragraphs (a) and (b) of this section may be added in a harmless carrier which does not impair the enriched flour; such carrier is used only in the quantity necessary to effect an intimate and uniform admixture of such substances with the flour.

Sec. 15.78. **Bromated flour; identity; label statement of option ingredients.** Bromated flour conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for flour by Sec. 15.90, except that:

(a) Potassium bromate is added in a quantity not exceeding 50 parts to each million parts of the finished bromated flour; and is added only to flours whose baking qualities are improved by such addition.

(b) Its protein content, calculated to a moisture-free basis, is not less than 11% (determination and calculations of protein are made as prescribed in Section 15.90 (c) (2)).

Sec. 15.79. **Enriched bromated flour; identity; label statement of optional ingredients.** Enriched bromated flour conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for enriched flour by Section 15.78, except that potassium bromate is added in a quantity not exceeding 50 parts to each million parts of the finished enriched bromated flour; and is added only to enriched flours whose baking qualities are improved by such addition. Note: Sec. 15.78 and 15.79 shall become effective Oct. 21, 1948 (13 F. R. 6232).

Sec. 15.80. **Durum flour; identity.** (a) Durum flour is the food prepared by grinding and bolting cleaned durum wheat. One of the sieves through which such flour is bolted has openings not larger than those of woven-wire cloth designated "148 micron (No. 100)" in Table I of "Standard Specifications for Sieves," published March 1, 1940, in L. C. 581 of the U. S. Department of Commerce, National Bureau of Standards. It is freed from bran coat, or bran coat and germ, to such extent that the per cent of ash therein, calculated to a moisture-free basis, is not more than 1.5%. Its moisture content is not more than 13%.

(b) For the purposes of this section, ash and moisture are determined by the methods thereto referred to in Section 15.90 (c).

Sec. 15.81. **Self-rising flour, self-rising white flour, self-rising wheat flour; identity; label statement of optional ingredients.** (a) Self-rising flour, self-rising white flour, self-rising wheat flour, is an intimate mixture of flour, sodium bicarbonate, and the acid-reacting substance monocalcium phosphate or sodium acid pyrophosphate or both. It is seasoned with salt. When it is tested by the method prescribed in paragraph (c), not less than 0.5% of carbon dioxide is evolved. The acid-reacting substance is added in sufficient quantity to neutralize the sodium bicarbonate. The combined weight of such acid-reacting substance and sodium bicarbonate is not more than 4.5 parts to each 100 parts of flour used. Subject to the conditions and restrictions prescribed by Section 15.90 (e), the bleaching ingredients specified in such section may be added as optional ingredients. If the flour used in making the self-rising flour is bleached, the optional bleaching ingredient used therein (see Section 15.90 (a)) is also an optional ingredient of the self-rising flour.

(b) When any optional bleaching ingredient is used, the label shall bear the word "Bleached." Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the word "Bleached" shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that where such name is a part of a trade-mark or brand, other written, printed, or graphic matter, which is also a part of such trade-mark or brand, may be interposed if the word "Bleached" is in such juxtaposition with such trade-mark or brand as to be conspicuously related to such name.

(c) The method referred to in paragraph (a) of this section is the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," 5th edition, 1940, beginning on page 144 [Ed. note: 6th Edition, p. 294] under "Gasometric Method with Chittick's Apparatus—Official," except that the following procedure is substituted for the procedure specified therein under "8—Determination":

Weigh 17 grams of the official sample into flask A, add 15.29 glass beads (4-6 mm. diameter), and connect this flask with the apparatus (Figure 27). Open stopcock C and by means of the leveling bulb E bring the displacement solution to the 25 cc. graduation above the zero mark. (This 25 cc. is a partial allowance for the volume of acid to be used in the decomposition.) Allow the apparatus to stand 1-2 minutes to insure that the temperature and pressure within the apparatus are the same as those of the room. Close the stopcock, lower the leveling bulb somewhat to reduce the pressure within the apparatus, and slowly run into the decomposition flask from burette F 45 cc. of sulfuric acid (1+5). To prevent the liberated carbon dioxide from escaping through the acid burette into the air, keep the displacement solution in the leveling bulb at all times during the decomposition at a lower level than that in the gas-measuring tube. Rotate and then vigorously agitate the decomposition flask for three minutes to mix the contents intimately. Allow to stand for 10 minutes to bring to equilibrium. Equalize the pressure in the measuring tube by means of the leveling bulb and read the volume of gas from the zero point on the tube. Deduct 20 cc. from this reading (the 25 cc. together with previous allowance of 25 cc. compensates for the 45 cc. acid used in the decomposition). Observe the temperature of the air surrounding the apparatus and also the barometric pressure and multiply the number of cc. of gas evolved by the factor given in Table 24—Chapter XLIII [Ed. note: 6th Edition, 1945, 413b] for the temperature and pressure observed. Divide the corrected reading by 180 to obtain the apparent per cent by weight of carbon dioxide in the official sample.

Correct the apparent per cent of carbon dioxide to compensate for carrying atmospheric conditions by immediately assaying a synthetic sample by the same method in the same apparatus.

Prepare the synthetic sample with 16.1 grams of flour, 0.35 gram of monocalcium phosphate, 0.10 gram of salt, and a sufficient quantity of sodium bicarbonate U. S. P. (dried over sulfuric acid) to yield the amount of carbon dioxide recovered in

Winnipeg Flour Prices

Note: Top patent spring wheat flour, delivery between Fort William and the Alberta boundary, per barrel. Source: The Northwestern Miller.

	1918	1918	1917	1944	1945	1944
Jan.	$8.15	$8.25	$6.30	$5.30	$5.30	$5.30
Feb.	8.25	8.65	6.30	5.30	5.30	5.30
March	9.65	8.65	5.30	5.40	5.30	5.30
April	11.25	8.65	5.30	5.40	5.30	5.30
May	11.15	8.65	5.35	5.30	5.30	5.30
June	11.15	8.65	5.35	5.30	5.30	5.30
July	11.15	8.65	5.35	5.30	5.30	5.30
Aug.	11.15	8.15	5.35	5.30	5.30	5.30
Sept.	11.15	8.15	5.35	5.30	5.30	5.30
Oct.	11.15	8.15	5.35	5.30	5.30	5.30
Nov.	11.15	8.15	5.35	5.30	5.30	5.30
Dec.	11.10	8.15	5.35	5.30	5.30	5.30
Aver.	$10.80	$8.13	$5.38	$5.32	$5.27	$5.30

assay of official sample. Determine this quantity by multiplying weight of carbon dioxide recovered in assay of official sample by 1.91.

Divide the weight of carbon dioxide recovered from synthetic sample by weight of carbon dioxide contained in sodium bicarbonate used.

Divide the quotient into the apparent per cent of carbon dioxide in official sample to obtain per cent of carbon dioxide evolved from the official sample.

Sec. 14.69. **Enriched self-rising flour; identity; label statement of optional ingredients.** Enriched self-rising flour conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for self-rising flour by Section 14.58, except that:

(a) It contains in each pound not less than 2.9 milligrams and not more than 3.3 milligrams of thiamine, not less than 1.2 milligrams and not more than 1.8 milligrams of riboflavin, not less than 16.6 milligrams and not more than 19.6 milligrams of niacin or niacin amide, not less than 11.6 milligrams and not more than 16.4 milligrams of iron (Fe), not less than 100 milligrams and not more than 1,500 milligrams of calcium (Ca);

(b) Vitamin D may be added in such quantity that each pound of the finished enriched self-rising flour contains not less than 250 U. S. P. units and not more than 1,000 U. S. P. units of vitamin D;

(c) It may contain not more than 5% by weight of wheat germ or partly defatted wheat germ;

(d) When calcium is added as disodium phosphate, such disodium phosphate is also considered to be an acid-reacting substance; and

(e) When calcium is added as carbonate, the method set forth in Section 14.58 (c) does not apply as a test for carbon dioxide evolved, but in such case the quantity of carbon dioxide evolved under ordinary conditions of use of the enriched self-rising flour is not less than 0.5% of the weight thereof.

Iron and calcium may be added only in forms which are harmless and assimilable. The substances referred to in paragraphs (a) and (b) of this section may be added in a harmless carrier which does not impair the enriched self-rising flour; such carrier is used only in the quantity necessary to effect an intimate and uniform admixture of such substances with the flour.

Sec. 14.70. **Phosphated flour, phosphated white flour, phosphated wheat flour; identity; label statement of optional ingredients.** Phosphated flour, phosphated white flour, phosphated wheat flour, conforms to the definition and standard of identity, and is subject to the requirements for label declaration of optional ingredients, prescribed for flour by Section 14.56, except that:

(a) Monocalcium phosphate is added in a quantity not less than 0.15% and not more than 0.75%, of the weight of the finished phosphated flour; and

(b) In determining whether the ash content complies with the requirements of this section allowance is made for the added monocalcium phosphate.

Sec. 14.80. **Whole wheat flour, graham flour, entire wheat flour; identity; label statement of optional ingredients.** (a) Whole wheat flour, graham flour, entire wheat flour, is the food prepared by regrinding cleaned wheat other than durum wheat and red durum wheat that, when tested by the method prescribed in paragraph (c) (2) of this section, not less than 98% passes through a No. 8 sieve and not less than 50% passes through a No. 20 sieve. The proportions of the natural constituents of such wheat, other than moisture, remain unaltered. To compensate for any natural deficiency of enzymes, malted wheat, malted wheat flour, malted barley flour, or any combination of two or more of them, may be used; but the quantity of malted wheat flour so used is not more than 0.5%, and the quantity of malted barley flour so used is not more than 0.5%. The moisture content of whole wheat flour is not more than 15%. Unless such addition conceals damage or inferiority of the whole wheat flour or makes it appear better or of greater value than it is, the optional bleaching ingredient chlorine dioxide, chlorine, or a mixture of nitrosyl chloride and chlorine, may be added in a quantity not more than sufficient for bleaching and artificial aging effects.

(b) When any optional bleaching ingredient is used, the label shall bear the word "Bleached." Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the word "Bleached" shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter; except that where such name is a part of a trade-mark or brand, other written, printed, or graphic matter, which is also a part of such trade-mark or brand, may so intervene if the word "Bleached" is in such juxtaposition with such trade-mark or brand as to be conspicuously related to such name.

(c) For the purpose of this section:

(1) Moisture is determined by the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," 6th edition, 1945, page 114, under "Vacuum Oven Method—Official." (Ed. note: 6th Edition, 1945, p. 137.)

(2) The method referred to in paragraph (a) of this section is as follows: Use No. 8 and No. 20 sieves, having standard 8-inch full height frames, complying with the specifications for wire cloth and sieve frames in "Standard Specifications for Sieves," published March 1, 1946, in L. C. 184 of the U. S. Department of Commerce, National Bureau of Standards. Fit a No. 8 sieve into a No. 20 sieve. Attach bottom pan to the No. 20 sieve. Pour 100 grams of the sample into the No. 8 sieve. Attach cover and hold the assembly in a slightly inclined position with one hand. Shake the sieve by striking the sides against the other hand with an upward stroke, at the rate of about 150 times per minute. Turn the sieves about one sixth of a revolution, each time in the same direction, after each 25 strokes. Continue shaking for two minutes. Weigh the material which fails to pass through the No. 8 sieve and the material which passes through the No. 20 sieve.

Sec. 14.86. **Brominated whole wheat flour; identity; label statement of optional ingredients.** Brominated whole wheat flour conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for whole wheat flour by Section 14.68, except that potassium bromate is added in a quantity not exceeding 75 parts to each million parts of finished brominated whole wheat flour.

Sec. 14.100. **Whole durum wheat flour; identity; label statement of optional ingredients.** Whole durum wheat flour conforms to the definition and standard of iden-

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Quantity of Flour Packaged

Note: Estimated 1945. Source: Southern Regional Research Laboratory, USDA.

Bag size	New cotton bags %	New burlap bags %	Paper sacks %
2-lb	4	7	2
5-lb	1	8	14
10-lb	3	6	13
25-lb	11	9	57
50-lb	24	8	1
100-lb	55	11	13
140-lb	4	79	0
Total	100	100	100

Types of Flour Bags

Source: Southern Regional Research Laboratory, USDA.

Year	Cotton %	Burlap %	Paper %	Other* %	Total %
1939	61	17	13	9	100
1940	85	11	**	**	100
1941	58	12	11	18	100
1942	68	4	13	14	100
1943	74	7	**	**	100
1944	57	11	18	11	100
1945	53	11	21	15	100
1946	43	23	17	7	100
1947	49	20	17	13	100
1948	59	11	19	11	100

Partially based on estimates of War Production Board and of industry associations.

*Reused bags, wooden barrels, and other containers. **No data.

Cotton and Burlap Use

Source: Southern Regional Research Laboratory, USDA.

Year	Cotton (million yards)	Burlap (million yards)
1939	206	38
1940	219	24
1941	258	21
1942	234	8
1943	272	6
1944	242	30
1945	238	36
1946	248	91
1947	314	101
1948	199	42

ity, and is subject to the requirements for label statement of optional ingredients, prescribed for whole wheat flour by Section 15.55, except that cleaned durum wheat, instead of cleaned wheat other than durum wheat and red durum wheat, is used in its preparation.

Sec. 15.110. **Crushed wheat, coarse ground wheat; identity.** Crushed wheat, coarse ground wheat, is the food prepared by so crushing cleaned wheat other than durum wheat and red durum wheat that, when tested by the method prescribed in Section 15.40 (c) (2), 40% or more passes through a No. 8 sieve and less than 50% passes through a No. 20 sieve. The proportions of the natural constituents of such wheat, other than moisture, remain unaltered. Crushed wheat contains not more than 15% of moisture as determined by the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," 5th edition, 1940, page 153 [Ed. note: 6th Edition, 1945, p. 184], under "Preparation of Sample—Official" and "Moisture 1. Drying with Heat—Official."

Sec. 15.120. **Cracked wheat; identity.** Cracked wheat is the food prepared by so cracking or cutting into angular fragments cleaned wheat other than durum wheat and red durum wheat that, when tested by the method prescribed in Section 15.80 (c) (2), not less than 90% passes through a No. 8 sieve and not more than 20% passes through a No. 20 sieve. The proportions of the natural constituents of such wheat, other than moisture, remain unaltered. Cracked wheat contains not more than 15% of moisture as determined by the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," 5th edition, 1940, page 153 [Ed. note: 6th Edition, 1945, p. 184], under "Preparation of Sample—Official" and "Moisture 1. Drying with Heat—Official."

Sec. 15.130. **Farina; identity.** (a) Farina is the food prepared by grinding and bolting cleaned wheat, other than durum wheat and red durum wheat, to such fineness that, when tested by the method prescribed in paragraph (b) (2) of this section, it passes through a No. 20 sieve, but not more than 3% passes through a No. 100 sieve. It is freed from bran coat, or bran coat and germ, to such extent that the per cent of ash therein, calculated to a moisture-free basis, is not more than 0.6%. Its moisture content is not more than 15%.

(b) For the purposes of this section:

(1) Ash and moisture are determined by the methods therefor referred to in Section 15.00 (c).

(2) The method referred to in paragraph (a) of this section is as follows: Use No. 20 and No. 100 sieves, having standard 8-inch full-height frames, complying with the specifications for wire cloth and sieve frames in "Standard Specifications for Sieves" published March 1, 1940, in L. C. 584 of the U.S. Department of Commerce, National Bureau of Standards. Fit a No. 20 sieve into a No. 100 sieve. Attach bottom pan to the No. 100 sieve. Pour 100 grams of the sample into the No. 20 sieve. Attach cover and hold the assembly in a slightly inclined position with one hand. Shake the sieves by striking the sides against the other hand with an upward stroke, at the rate of about 150 times per minute. Turn the sieves about one sixth of a revolution, each time in the same direction, after each 25 strokes. Continue shaking for two minutes. Weigh the material which fails to pass through the No. 20 sieve and the material which passes through the No. 100 sieve.

Sec. 15.140. **Enriched farina; identity; label statement of optional ingredients.** (a) Enriched farina conforms to the definition and standard of identity prescribed for farina by Section 15.130, except that:

(1) It contains in each pound not less than 1.66 milligrams of vitamin B_1, not less than 1.2 milligrams of riboflavin, not less than 6 milligrams of niacin or niacin amide, and not less than 6 milligrams of iron (Fe);

Note: The effective date of the requirement that each pound of enriched farina contain not less than 1.2 milligrams of riboflavin was postponed until further announcement. 6 F.R. 2218, 8116.

(2) Vitamin D may be added in such quantity that each pound of the finished enriched farina contains not less than 250 U. S. P. units of the optional ingredient vitamin D;

(3) Calcium may be added in such quantity that each pound of the finished enriched farina contains not less than 500 milligrams of the optional ingredient calcium (Ca);

(4) It may contain not more than 5% by weight of the optional ingredient wheat germ or partly defatted wheat germ.

(5) It may contain not less than 0.5% and not more than 1% by weight of the optional ingredient disodium phosphate.

(6) In determining whether the ash content complies with the requirements of this section allowance is made for ash resulting from any added iron or salts of iron or calcium, or from any added disodium phosphate, or from any added wheat germ or partly defatted wheat germ.

Iron and calcium may be added only in forms which are harmless and assimilable. Dried irradiated yeast may be used as a source of vitamin D. The substances referred to in subparagraphs (1) and (2) of this paragraph may be added in a harmless carrier which does not impair the enriched farina; such carrier is used only in the quantity necessary to effect an intimate and uniform admixture of such substances with the farina.

(b) When the optional ingredient disodium phosphate is used, the label shall bear the statement "Disodium phosphate added for quick cooking." Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, such statement shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter; except that where such name is a part of a trade-mark or brand, other written, printed, or graphic matter, which is also a part of such trade-mark or brand, may so intervene if such statement is in such juxtaposition with such trade-mark or brand as to be conspicuously related to such name.

Sec. 15.150. **Semolina; identity.** (a) Semolina is the food prepared by grinding and bolting cleaned durum wheat to such fineness that, when tested by the method prescribed in Section 15.130 (b) (2), it passes through a No. 20 sieve, but not more than 3% passes through a No. 100 sieve. It is freed from bran coat, or bran coat and germ, to such extent that the per cent of ash therein, calculated to a moisture-

Flour Stocks Held by U.S. Mills

Note: In sacks. Source: Bureau of Census, Department of Commerce.

	Wheat flour	Rye flour
1949—		
Dec. 31	4,945,000	73,000
Sept. 30	4,757,000	73,000
June 30	3,396,000	48,000
March 31	3,481,000	87,000
1948—		
Dec. 31	5,118,000	74,000
Sept. 30	4,062,000	74,000
June 30	4,396,000	108,000
March 31	2,621,000	94,000
1947—		
Dec. 31	5,912,000	197,000
Sept. 30	4,945,000	163,000
June 30	4,194,000	61,387
March 31	5,576,000	75,029
1946—		
Dec. 31	8,304,000	61,397
Sept. 30	6,322,000	68,330
June 30	3,776,000	8,019
March 31	4,075,000	104,359
1945—		
Dec. 31	6,962,353	111,548
Sept. 30	5,162,940	106,042
June 30	6,012,457	97,786
March 31	6,614,281	......
1944—		
Dec. 31	4,997,654	......
Sept. 30	5,799,202	......
June 30	6,709,787	......
March 31	5,118,630	......

free basis, is not more than 0.92%. Its moisture content is not more than 15%.

(b) For the purpose of this section:

Ash and moisture are determined by the methods therefor referred to in Section 15.00 (c).

Effective Dates—Chlorine dioxide is a gaseous substance whose practical use as a bleaching ingredient is made possible by the employment of certain machines for generating the chlorine dioxide gas, mixing it with air, and bringing measured amounts of the gaseous mixture in contact with the flour to be treated. The manufacture and installation of suitable machines to replace those used for bleaching with nitrogen trichloride will be time-consuming. Such change-over must be started immediately, in order to make possible the elimination of nitrogen trichloride as a bleaching agent for the various flours at the earliest practicable time. The necessity for beginning the change-over immediately creates an emergency condition which requires that the recognition of chlorine dioxide as an optional ingredient be made effective on the date of publication of this order in the Federal Register.

The time required fully to effect the change-over necessitates that a somewhat longer period be allowed before deleting nitrogen trichloride from the standard as an optional ingredient. No unusual conditions exist with respect to the use of additional diluting agents in conjunction with benzoyl peroxide.

Wherefore, it is ordered, That with respect to the definitions and standards of identity for flour (Sec. 15.00), enriched flour (Sec. 15.10), bromated flour (Sec. 15.20), enriched bromated flour (Sec. 15.30), self-rising flour (Sec. 15.50), enriched self-rising flour (Sec. 15.60), and phosphated flour (Sec. 15.70), insofar as the amendments hereby promulgated provide for designating chlorine dioxide as an optional bleaching ingredient, they shall become effective immediately upon publication of this order in the Federal Register; insofar as such amendments provide for carriers in addition to those previously permitted as carriers for benzoyl peroxide, they shall become effective ninety (90) days after the publication of this order in the Federal Register; and insofar as such amendments provide for deleting nitrogen trichloride from the permitted optional bleaching ingredients, they shall become effective Aug. 1, 1949.

It is further ordered, That with respect to the definitions and standards of identity for whole wheat flour (Sec. 15.80), bromated whole wheat flour (Sec. 15.90), and whole durum wheat flour (Sec. 15.100), insofar as the amendments hereby promulgated provide for designating chlorine dioxide as an optional bleaching ingredient, they shall become effective immediately upon publication of this order in the Federal Register; and insofar as such amendments provide for deleting nitrogen trichloride from the permitted optional bleaching ingredients, they shall become effective Aug. 1, 1949.

Flour Production Statistics in Detail

The Southwest

Number of flour mills, capacity ratings, amount of flour produced and wheat ground by mills in Kansas, Oklahoma, Nebraska and Texas during the crop year ended June 30, 1949, as reported to The Northwestern Miller. (Output of nonreporting mills of 200 sacks and less daily capacity estimated to be at the same rate of activity as reporting mills of similar capacity rating):

CROP YEAR PRODUCTION

Crop Year Ending June 30, 1949

Group or state	No. mills reporting	Annual capacity, sacks	Annual output, sacks	Pct. of capacity	Pct. of increase or decrease
Kan.	45	19,446,180	11,302,291	42.8	—11.4
Texas	37	24,915,100	18,317,861	73.4	—13.2
Okla.	29	14,475,000	13,383,161	88.4	—13.6
Neb.	24	8,134,900	7,130,282	78.7	—13.0
S. C.	8	26,846,000	17,348,823	82.9	— 4.1
Totals	141	113,818,180	93,482,423	69.2	—11.1

KANSAS

Crop Year Ending June 30, 1949

(000's omitted)

No. mills	Capacity of rating, sacks	Daily capacity, sacks	Flour production, sacks	Wheat consumption, bu.	Pct. activity
74	1,000 and over	134,944	35,314	85,897	47.2
16	500 to 1,000	22,270	4,887	10,973	21.8
8	400 to 499	3,480	721	1,666	45.7
2	300 to 399	600			
3	Less than 300	340	11	23	10.1
93		161,631	41,032	93,663	41.9

*Outside Kansas City, Kansas.

TEXAS

Crop Year Ending June 30, 1949

(000's omitted)

No. mills	Capacity of rating, sacks	Daily capacity, sacks	Flour production, sacks	Wheat consumption, bu.	Pct. activity
14	1,000 and over	21,000	15,787	35,788	75.1
8	500 to 1,000	6,415	1,729	4,028	86.8
8	400 to 1,000	3,054	782	1,817	43.5
2	300 to 400	480			
3	Less than 300	450			
35		31,879	18,318	41,633	70.4

OKLAHOMA

Crop Year Ending June 30, 1949

(000's omitted)

No. mills	Capacity of rating, sacks	Daily capacity, sacks	Flour production, sacks	Wheat consumption, bu.	Pct. activity
12	1,000 and over	10,150	10,153	24,184	84.4
3	500 to 1,000	1,050	814	1,172	74.9
9	400 to 1,000	1,474	843	1,963	57.8
2	300 to 400	100	41	119	30.1
3	Less than 300				
29		12,774	11,841	27,438	85.4

NEBRASKA

Crop Year Ending June 30, 1949

(000's omitted)

No. mills	Capacity of rating, sacks	Daily capacity, sacks	Flour production, sacks	Wheat consumption, bu.	Pct. activity
5	1,000 and over	5,945	5,597	12,429	93.8
4	500 to 1,000	1,600	1,379	2,887	76.1
9	400 to 1,000	3,240	586	1,377	37.8
6	300 to 400	1,600	74	181	15.9
8	Less than 300	620	13	31	6.6
32		11,745	7,329	16,904	78.7

CAPACITY OPERATED

Percentage of output as related to full capacity (based on 300 running days) of mills in the Southwest for the crop year ending June 30, 1949, with previous years for comparisons:

	1,000 and over	1,000 to 1,000	400 to 500	300 to 400	Less than 300	Average
1944-45						
Kan.	87.7	75.4	43.7		10.1	81.8
Texas	78.1	68.8	43.5			73.4
Okla.	88.4	76.0	47.9	30.2		88.8
Neb.	85.9	76.4	57.6	15.0	6.6	78.7
1947-48						
Kan.	96.4	86.3	76.1	18.1	26.1	96.8
Texas	93.8	95.1	73.8	6.3	9.7	87.6
Okla.	99.5	94.8	67.7	44.9		94.8
Neb.	101.1	89.7	88.8	34.6	27.4	89.4
1948-47						
Kan.	96.6	92.6	87.2	16.0	24.8	94.1
Texas	91.8	88.0	78.3	7.1	7.4	91.6
Okla.	95.1	100.7	78.8	48.8	3.1	95.8
Neb.	100.1	100.9	94.6	34.3	21.8	98.1
1949-50						
Kan.	81.6	77.5	65.8	16.0	22.1	81.9
Texas	87.8	74.1	43.7	7.1	8.0	83.8
Okla.	89.6	85.7	50.2	27.8	3.1	85.0
Neb.	90.8	89.6	66.1	21.0	14.9	80.0
1949-51						
Kan.	80.0	72.2	52.8	17.8	10.8	78.7
Texas	75.9	68.1	58.4	16.9	7.5	72.8
Okla.	89.7	84.7	50.2	14.8	16.0	86.3
Neb.	106.3	88.7	57.8	27.1	11.0	81.0
1951-54						
Kan.	86.7	76.4	63.1	21.4	8.3	81.7
Texas	81.2	73.7	48.3	16.9	8.3	81.6
Okla.	89.7	77.8	45.6	15.8	14.4	78.7
Neb.	99.8	89.1	65.8	22.1	11.1	75.8

CONSOLIDATED BY YEARS

Number of active flour mills in the Southwest (including Kansas, Oklahoma, Nebraska and Texas), their combined daily capacity, number of sacks of flour produced, number of bushels of wheat ground and percentage of capacity operated, by years ending June 30:

ALL SOUTHWEST

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.	Pct. of activity
1949	156	355,887	93,482,422	239,182,611	69.2
1948	168	358,540	104,436,802	244,583,827	93.0
1947	169	377,615	106,789,924	246,360,647	94.1
1946	186	388,229	88,779,412	203,711,338	83.3
1945	191	384,901	83,208,882	194,611,693	78.2
1944	189	356,144	78,516,519	187,895,163	78.6
1943	213	352,980	84,176,479	175,841,320	79.1
1942	231	354,642	68,681,687	148,212,783	64.8
1941	239	341,747	76,234,089	161,932,838	84.7
1940	256	364,387	71,514,533	164,900,477	65.4
1939	274	368,218	68,737,949	153,296,938	62.9
1938	290	372,676	66,804,038	145,837,822	60.4
1937	312	375,627	70,167,144	161,946,870	62.7

KANSAS

Not including mills located in Kansas City, Kansas:

1949	45	164,631	41,032,291	93,181,408	83.9
1948	45	182,585	46,364,323	105,492,280	86.9
1947	48	187,365	44,696,887	101,580,358	94.4
1946	58	187,888	36,773,714	83,561,351	81.9
1945	76	195,681	33,876,016	79,914,276	78.0
1944	80	175,845	34,367,060	83,867,634	83.6
1943	77	164,783	31,481,596	72,786,988	72.1
1942	75	160,983	28,936,237	65,863,864	69.6
1941	77	146,483	27,982,723	64,848,366	88.1
1940	85	142,953	28,857,791	68,206,422	66.6
1939	92	144,864	28,866,221	62,758,729	82.9
1938	95	144,364	21,192,009	48,306,271	58.1
1937	104	149,929	27,847,476	64,726,468	61.0

The following supplementary table shows details of Kansas production, including Kansas City, Kansas, mills:

1949	87	191,131	41,724,761	102,183,484	82.1
1948	87	179,281	50,872,685	113,884,291	84.6
1947	78	174,891	48,145,113	112,936,788	94.1
1946	72	164,366	38,997,416	91,012,306	81.0
1945	71	165,236	36,734,554	84,182,176	74.9
1944	71	156,175	37,481,881	88,457,763	78.0
1943	74	153,413	34,231,877	78,484,384	76.4
1942	77	152,643	30,885,179	71,803,441	65.1
1941	79	147,145	30,895,806	76,225,981	85.4
1940	87	158,141	31,821,879	73,536,996	67.0
1939	94	160,161	30,546,431	70,159,166	63.1
1938	99	164,776	29,766,876	66,644,176	58.3
1937	107	170,314	31,919,696	76,456,317	68.4

TEXAS

1949	37	83,678	18,317,861	41,341,941	73.4
1948	37	83,364	21,446,782	48,164,269	87.6
1947	37	76,100	21,745,600	48,613,168	92.6
1946	38	76,324	18,992,048	44,083,719	83.9
1945	42	76,016	18,766,992	38,447,683	72.8
1944	43	77,611	16,438,160	34,313,160	65.8
1943	44	78,161	13,964,810	30,875,176	67.4
1942	45	77,400	12,382,110	28,547,206	63.6
1941	46	81,427	14,611,893	32,996,123	66.4
1940	46	83,038	14,976,719	33,283,291	66.4
1939	50	84,284	13,199,841	30,336,984	61.5
1938	50	84,388	16,399,759	35,145,185	66.0
1937	56	77,567	13,647,000	31,976,002	60.0

OKLAHOMA

1949	29	48,879	13,383,484	27,438,447	84.4
1948	28	48,876	13,831,613	31,660,069	94.8
1947	29	48,179	14,055,398	31,836,960	95.9
1946	29	48,148	11,338,393	25,766,837	85.4
1945	30	46,762	11,776,176	27,131,169	88.8
1944	30	44,938	10,438,858	24,648,049	78.7
1943	30	42,446	8,812,766	22,334,464	77.6
1942	30	43,622	5,786,263	20,377,149	68.7
1941	33	43,098	8,866,413	20,846,476	68.4
1940	37	43,493	8,638,863	18,767,469	66.6
1939	38	44,041	8,308,719	18,837,415	63.1
1938	41	43,481	8,614,336	20,313,826	67.4
1937	43	44,760	9,346,164	19,814,271	68.8

NEBRASKA

1949	24	43,783	7,130,282	16,904,438	78.7
1948	30	38,896	8,381,994	19,659,474	88.8
1947	28	38,185	8,838,337	19,190,861	88.1
1946	49	39,184	7,246,668	16,317,038	86.6
1945	61	38,178	6,884,956	16,241,710	81.0
1944	58	38,418	6,781,483	14,817,846	78.8
1943	59	31,507	6,764,889	15,863,147	73.9
1942	67	34,331	6,369,234	14,996,816	63.2
1941	74	31,833	6,828,214	16,197,366	83.0
1940	80	36,466	6,484,324	15,383,764	69.8
1939	87	37,818	6,141,836	14,786,988	66.0
1938	93	38,324	6,384,663	15,158,868	64.8
1937	94	38,339	6,878,324	16,586,742	68.1

PRODUCTION AT CENTERS

Capacity and production at the principal milling centers during the crop year ended June 30, 1949, with previous years for comparison (Kansas City figures include both Kansas City, Mo., and Kansas City, Kansas):

KANSAS CITY

	Sacks: Yearly capacity	Sacks: Flour made	Pct. of activity
1949	20,949,094	17,749,833	83.9
1948	19,330,600	18,289,964	95.1
1947	18,819,000	18,945,427	97.4
1946	17,828,800	14,825,727	83.7
1945	17,884,000	13,861,233	78.8
1944	17,894,000	13,336,124	75.2
1943	17,823,000	13,104,802	74.7
1942	17,846,000	13,821,818	77.8
1941	17,846,000	12,644,477	70.7
1940	17,846,000	13,872,864	77.8
1939	17,474,000	14,146,118	81.2
1938	16,696,400	14,343,354	76.7
1937	16,696,400	12,286,864	73.6

FORT WORTH-DALLAS

1949	8,860,000	6,570,291	74.1
1948	8,370,000	7,468,968	89.2
1947	8,360,000	7,346,496	88.2
1946	7,976,000	6,616,768	83.3
1945	7,626,000	6,176,533	78.2
1944	8,620,000	6,576,014	80.4
1943	7,316,000	5,168,231	71.2
1942	7,782,000	4,538,146	58.8
1941	8,114,400	5,061,453	67.6
1940	7,585,200	5,033,584	63.8
1939	7,645,200	5,099,300	68.7
1938	7,324,800	4,525,160	61.8

WICHITA

1949	6,830,000	4,781,283	81.2
1948	6,500,000	6,037,475	90.8
1947	6,500,000	6,531,214	96.0
1946	6,500,000	4,906,500	86.1
1945	6,500,000	4,288,964	77.4
1944	6,218,000	4,187,245	81.0
1943	6,158,000	4,263,665	76.7
1942	6,158,000	4,131,284	74.4
1941	6,646,000	4,646,501	80.8
1940	6,354,000	4,496,877	86.6
1939	6,654,000	4,408,423	88.6
1938	6,138,200	4,345,728	71.4

SALINA

1949	5,010,000	4,781,287	91.9
1948	4,935,000	4,842,694	98.7
1947	4,936,000	4,697,260	94.3
1946	4,946,000	3,674,100	80.7
1945	4,890,000	4,338,766	88.3
1944	5,340,000	4,866,741	91.1
1943	5,038,000	4,261,848	75.3
1942	5,187,000	3,818,730	73.6
1941	5,487,000	3,886,714	70.8
1940	5,187,000	3,616,890	69.1
1939	5,187,000	3,154,718	60.8
1938	5,292,000	4,073,494	76.9

(Continued on page 52)

OMAHA

	Yearly capacity (sacks)	Flour made (sacks)	Pct. of activity
1949	3,420,000	3,123,871	90.9
1948	3,420,000	3,400,172	99.4
1947	3,270,000	3,282,290	100.3
1946	3,270,000	3,017,087	92.2
1945	2,783,100	3,004,738	107.9
1944	2,783,100	2,862,464	102.8
1943	3,118,400	2,958,480	94.9
1942	3,118,400	2,907,129	93.2
1941	3,118,400	3,050,582	97.8
1940	3,118,400	3,012,943	96.6
1939	2,118,600	2,022,006	96.2
1938	2,334,000	1,484,181	77.1
1937	2,334,000	1,632,072	81.4

HUTCHINSON

	Yearly capacity (sacks)	Flour made (sacks)	Pct. of activity
1949	2,700,000	2,171,777	80.4
1948	2,700,000	2,551,021	94.5
1947	3,261,400	3,018,084	92.5
1946	3,057,000	2,428,304	79.4
1945	3,057,000	2,269,039	74.2
1944	3,077,000	2,817,000	91.5
1943	3,057,000	2,698,270	88.5
1942	2,361,000	1,710,104	81.2
1941	3,321,400	1,904,998	57.3
1940	3,118,400	2,067,633	66.6
1939	2,418,400	2,156,277	62.9
1938	3,321,400	2,120,049	64.1
1937	3,381,400	2,275,284	67.9

The Northwest

Number of flour mills, capacity ratings, amount of flour produced and wheat ground by mills in Minnesota, North Dakota, South Dakota and Montana during the crop year ended Aug. 31, 1949, as reported to The Northwestern Miller. (Output of nonreporting mills of 200 sacks and less daily capacity estimated to be at the same rate of activity as reporting mills of similar capacity rating):

CROP YEAR, 1948-49

000's omitted

	No. mills reporting '48-'49	No. mills reporting '47-'48	Annual cap., sacks '48-'49	Annual cap., sacks '47-'48	Output, sacks '48-'49	Output, sacks '47-'48	†Pct. of decr.
Minn.*	35	42	24,224	24,275	17,786	19,408	—8.3
N. D.	10	19	5,304	4,884	3,843	3,669	—17.5
S. D.	8	8	960	888	268	428	—8.3
Mont.	14	18	4,793	1,000	3,708	3,878	—5.5
Mpls.	16	16	19,088	16,848	13,051	16,287	—20.0
Total	83	94	54,358	51,761	38,869	43,470	—10.9

*Interior mills including Duluth-Superior and St. Paul. †Or increase.

WHEAT CONSUMPTION

1948-49

	Wheat ground, bu.	Flour made, sacks	Millfeed made, tons
Minn. Int.	41,787,274	17,786,375	387,235
Minneapolis	28,319,889	13,051,016	217,944
N. Dakota	7,906,744	3,842,081	80,029
S. Dakota	905,109	388,479	19,886
Montana	7,711,864	3,706,121	88,111
Totals	85,715,879	38,968,081	720,202

1947-48

	Wheat ground, bu.	Flour made, sacks	Millfeed made, tons
Minn. Int.	44,702,797	19,407,872	336,469
Minneapolis	38,279,503	16,287,449	288,831
N. Dakota	8,539,871	3,869,012	78,280
S. Dakota	1,006,461	427,747	9,056
Montana	8,488,965	3,877,953	73,765
Totals	101,016,598	43,470,033	834,001

PERCENTAGE OF CAPACITY OPERATED

Percentage of output to full capacity based on 300 running days of mills of all sizes in the Northwest, by days ending Aug. 31:

1948-49

	2,000 and over	1,000 to 2,000	400 to 1,000	200 to 400	Less than 200	Average
Minnesota*	74.6	32.2	41.6	11.6	13.4	73.4
N. Dakota	59.4	59.7	....	....	12.0	57.3
S. Dakota	....	....	37.4	....	11.8	46.2
Montana	81.4	61.7	....	20.5	31.9	77.3

1947-48

	2,000 and over	1,000 to 2,000	400 to 1,000	200 to 400	Less than 200	Average
Minnesota*	84.1	54.0	41.1	15.8	16.1	79.9
N. Dakota	72.1	45.9	....	....	14.9	69.1
S. Dakota	....	....	50.2	....	18.1	44.2
Montana	90.4	75.8	....	58.3	4.2	75.5

*Interior mills including Duluth, Superior and St. Paul.

MINNESOTA

Number of flour mills in Minnesota (outside of Minneapolis) together with capacity ratings and amount of flour produced and wheat ground in crop year ended Aug. 31, 1949:

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
16	2,000 and over	71,700	16,914,301	39,176,073
3	1,000 to 2,000	4,300	424,280	1,561,695
2	500 to 1,000	1,800	322,828	754,489
4	200 to 400	900	31,901	77,323
9	100 to 200	2,040	66,000	507,706
35		80,740	17,786,375	41,787,274

Figures for year ending Aug. 31, 1948:

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
18	2,000 and over	71,700	18,187,972	41,926,652
3	1,000 to 2,000	4,300	730,652	1,634,133
3	500 to 1,000	1,800	332,124	775,845
26	Less than 200 to 400	3,116	157,129	373,124
42		80,916	19,407,872	44,702,797

NORTH DAKOTA

Figures for year ending Aug. 31, 1949:

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
1	2,000 and over	14,000	3,061,679	5,984,854
2	400 to 1,000	2,300	411,334	956,733
4	50 to 250	780	24,980	63,143
10		17,680	3,042,081	7,006,744

Figures for year ending Aug. 31, 1948:

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
4	2,000 and over	14,600	3,168,133	7,335,098
2	400 to 1,000	2,300	476,880	1,128,056
4	50 to 250	780	32,800	75,735
10		17,680	3,669,012	8,539,871

SOUTH DAKOTA

Figures for year ending Aug. 31, 1949:

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
2	400 to 1,400	2,000	244,785	404,722
6	70 to 300	1,220	43,691	101,397
8		3,220	288,476	505,109

Figures for year ending Aug. 31, 1948:

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
2	400 to 1,500	2,000	361,312	846,856
6	Less than 200 to 400	1,220	66,435	159,607
8		3,220	427,747	1,006,463

MONTANA

Figures for year ending Aug. 31, 1949:

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
2	2,000 and over	7,700	2,122,293	4,812,061
5	400 to 2,000	6,175	1,171,444	2,723,851
6	100 to 300	1,900	412,384	175,749
13		15,875	3,706,121	7,711,881

Figures for year ending Aug. 31, 1948:

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
2	2,000 and over	7,700	2,081,532	4,767,483
5	400 to 2,000	6,375	1,366,711	3,149,677
17	Less than 200 to 300	2,150	229,340	531,289
18		16,225	3,677,953	8,488,965

CONSOLIDATED BY YEARS NORTHWEST

Number of active flour mills in Minneapolis, interior Minnesota (Duluth-Superior and St. Paul), North Dakota, South Dakota and Montana, including daily capacity, number of sacks of flour produced, number of bushels ground and percentage of capacity operated, by years ending Aug. 31:

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.	Pct. of capacity
1949	83	181,141	38,969,041	85,719,679	71.5
1948	94	181,291	43,470,033	101,014,588	78.9
1947	102	157,138	51,387,688	114,185,593	91.3
1946	112	174,777	43,682,962	97,995,409	81.4
1945	121	179,249	44,249,369	102,549,683	81.9
1944	131	174,487	39,389,744	90,140,175	75.0
1943	139	174,450	36,782,101	84,834,077	70.6
1942	147	179,343	36,487,383	88,840,677	66.9
1941	150	179,151	28,191,041	63,818,748	53.0
1940	153	177,189	29,141,130	66,951,581	53.4
1939	157	177,129	29,193,267	67,989,474	53.0
1938	169	206,363	29,116,798	64,653,888	45.1
1937	194	222,677	27,474,228	63,848,996	40.9
1936	202	237,116	28,858,533	62,558,925	....
1935	201	238,184	28,400,416	69,409,902	42.1
1934	193	239,894	33,713,894	77,404,143	46.8

MINNESOTA*

Year ending Aug. 31:

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.	Pct. of capacity
1949	35	80,740	17,786,375	41,787,274	73.4
1948	42	80,916	19,407,872	44,702,797	79.9
1947	42	83,736	23,114,832	52,841,878	93.3
1946	53	81,003	18,887,964	42,598,838	77.8
1945	51	82,708	19,718,772	45,926,192	79.9
1944	58	82,400	17,047,061	39,027,772	69.9
1943	67	81,192	16,496,733	37,947,088	67.7
1942	69	79,381	15,269,100	36,671,040	64.1
1941	69	79,479	13,834,373	29,842,489	53.7
1940	66	79,840	12,836,849	29,488,179	53.3
1939	73	75,827	13,004,102	29,856,225	57.1
1938	72	78,766	12,098,751	27,777,740	49.9
1937	83	83,114	12,685,088	28,884,463	49.1
1936	88	84,348	14,870,877	34,160,734	52.6
1935	88	87,573	11,825,191	27,379,286	40.7
1934	85	86,172	13,642,259	31,321,270	47.8

*Includes Duluth-Superior and St. Paul.

NORTH DAKOTA

Year ending Aug. 31:

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.	Pct. of capacity
1949	10	17,680	3,042,081	7,006,744	57.3
1948	10	17,680	3,669,012	8,539,871	69.1
1947	15	21,970	4,849,004	11,107,049	73.6
1946	16	18,738	3,977,816	9,028,438	70.7
1945	23	20,708	4,061,314	9,797,771	65.3
1944	22	20,169	3,420,050	8,071,317	56.6
1943	25	21,071	3,082,731	7,156,929	48.8
1942	25	20,923	2,725,084	6,254,190	43.4
1941	35	18,926	2,414,931	5,383,322	39.2
1940	24	20,973	2,370,219	5,441,819	37.8
1939	23	20,478	1,873,497	4,301,401	30.2
1938	29	21,707	1,936,267	4,432,414	29.6
1937	39	22,342	2,048,282	4,702,084	30.5
1936	35	24,471	3,130,694	7,187,813	42.8
1935	37	24,718	2,399,490	5,270,445	31.0
1934	34	24,355	2,518,718	5,782,753	34.4

SOUTH DAKOTA

Year ending Aug. 31:

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.	Pct. of capacity
1949	8	3,220	388,476	905,109	46.2
1948	8	3,220	427,747	1,006,463	44.2
1947	8	3,170	495,192	1,161,549	52.0
1946	10	3,320	438,549	972,098	42.8
1945	10	3,220	390,395	836,733	38.1
1944	14	3,705	367,670	771,686	28.2
1943	14	3,949	334,061	771,680	28.2
1942	16	4,291	442,797	1,016,828	32.6
1941	17	4,292	464,171	1,065,702	36.0
1940	18	4,557	552,103	1,267,583	40.3
1939	18	4,268	523,906	1,202,844	38.7
1938	17	4,283	388,343	887,015	30.0
1937	21	4,528	361,928	828,871	26.0
1936	22	4,968	488,688	1,116,017	32.8
1935	24	5,135	397,541	912,770	25.8
1934	17	4,792	372,669	856,616	28.9

MONTANA

Year ending Aug. 31:

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.	Pct. of capacity
1949	14	15,875	3,706,121	7,711,864	77.3
1948	18	16,225	3,677,953	8,488,965	75.5
1947	21	18,050	4,287,160	9,895,288	89.9
1946	19	16,155	4,139,481	9,232,504	85.4
1945	22	18,952	4,134,526	9,468,064	72.3
1944	26	16,062	3,642,696	8,232,494	80.6
1943	29	16,474	3,398,467	7,477,122	71.3
1942	33	16,729	2,383,801	5,472,556	50.5
1941	33	18,866	2,455,943	5,634,842	49.1
1940	32	17,042	2,823,789	6,493,166	55.2
1939	32	17,062	3,018,489	6,930,184	58.9
1938	36	16,023	2,425,889	5,589,970	50.4
1937	39	18,871	2,413,479	5,541,149	42.6
1936	43	20,093	2,970,161	6,830,875	67.2
1935	36	20,276	3,463,110	7,951,014	58.9
1934	43	21,666	3,241,828	7,442,512	49.8

MINNEAPOLIS

Year ending Aug. 31:

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.	Pct. of capacity
1949	16	63,528	13,051,016	28,319,889	63.2
1948	16	63,168	16,287,449	38,279,503	85.9
1947	16	57,700	19,035,842	43,289,863	95.6
1946	14	59,568	16,291,175	36,151,474	91.1
1945	15	57,200	15,865,461	36,431,213	94.7
1944	15	53,214	14,842,067	33,998,231	92.9
1943	15	53,214	13,558,188	31,179,188	84.9
1942	15	54,898	11,506,728	26,522,502	65.4
1941	15	58,500	10,361,724	23,930,595	59.1
1940	15	59,094	10,484,189	24,170,842	58.1
1939	16	59,094	11,192,207	25,698,690	63.1
1938	16	64,674	11,275,149	25,888,931	66.4
1937	16	64,574	10,070,429	23,121,429	39.7
1936	16	61,136	14,484,152	33,254,388	66.3
1935	16	53,934	12,320,258	22,288,307	41.1
1934	16	94,472	13,938,518	32,001,748	46.5

U.S. Wheat Ground, Flour and Millfeed Production by Months

Note: Year ending June 30. Based on reports from mills producing approximately 90% of the flour in the U.S. Source: Bureau of the Census, U.S. Department of Commerce.

WHEAT

Expressed in thousands of bushels

	Total	July	August	Sept'ber	October	Nov'ber	December	January	February	March	April	May	June
1948-49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1947-48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1946-47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1945-46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1944-45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1943-44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1942-43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1941-42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940-41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1939-40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1938-39	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1937-38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1936-37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1935-36	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1934-35	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1933-34	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1932-33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1931-32	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1930-31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1929-30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

FLOUR

Expressed in thousands of sacks

	Total	July	August	Sept'ber	October	Nov'ber	December	January	February	March	April	May	June
1948-49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1947-48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1946-47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1945-46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1944-45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1943-44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1942-43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1941-42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940-41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1939-40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1938-39	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1937-38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1936-37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1935-36	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1934-35	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1933-34	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1932-33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1931-32	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1930-31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1929-30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

MILLFEED

Expressed in thousands of pounds

	Total	July	August	Sept'ber	October	Nov'ber	December	January	February	March	April	May	June
1948-49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1947-48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1946-47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1945-46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1944-45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1943-44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1942-43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1941-42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940-41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1939-40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1938-39	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1937-38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1936-37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1935-36	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1934-35	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1933-34	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1932-33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1931-32	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1930-31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1929-30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

U.S. Flour Production at Principal Centers

Note: In sacks. **Source: The Northwestern Miller.**

Flour production in principal manufacturing areas by mills reporting to The Northwestern Miller, with relationships of production to capacity and to the total estimated output of all mills in the U.S. expressed in percentages:

	1949	1948	1947	1946	1945	1944
Northwest—						
Minneapolis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Interior mills*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Totals	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Southwest—						
Kansas City	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wichita	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Salina	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Interior mills†	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Totals	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Buffalo	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Central & S.E. states**	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
No. Pacific Coast—						
Seattle	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tacoma	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Portland	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Interior mills††	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Totals	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Grand totals	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Percentage of total U.S. production	72	78	68	67	71	61
Percentage of capacity operated	77	84	94	86	90	82

*Principal interior mills in Minnesota, including Duluth, St. Paul, North Dakota, Montana and Iowa. **Mills in Illinois, Ohio, Michigan, Indiana, Kentucky, North Carolina, Tennessee, Virginia, Georgia and eastern Missouri. †Mills outside of Kansas City, Wichita and Salina. ††Mills in Washington and Oregon outside of Portland, Seattle and Tacoma.

U.S. Flour Production

Note: By calendar years. Based on reports from mills producing 90% of flour in U.S. 000's omitted. Source: Department of Commerce.

	Wheat ground, bus	Flour output, sacks	Millfeed output, tons
1949	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]
1937	[illegible]	[illegible]	[illegible]
1936	[illegible]	[illegible]	[illegible]
1935	[illegible]	[illegible]	[illegible]
1934	[illegible]	[illegible]	[illegible]
1933	[illegible]	[illegible]	[illegible]
1932	[illegible]	[illegible]	[illegible]
1931	[illegible]	[illegible]	[illegible]
1930	[illegible]	[illegible]	[illegible]
1929	[illegible]	[illegible]	[illegible]
1928	[illegible]	[illegible]	[illegible]
1927	[illegible]	[illegible]	[illegible]
1926	[illegible]	[illegible]	[illegible]
1925	[illegible]	[illegible]	[illegible]
1924	[illegible]	[illegible]	[illegible]
1923*	[illegible]	[illegible]	.....
1921*	[illegible]	[illegible]	.....

*Census of manufactures.

Wheat Flour Production at Principal Centers in the U.S.

Note: By calendar years, in sacks. **Source: The Northwestern Miller.**

	Buffalo	Kansas City	Minneapolis	Toledo	St. Louis	Wichita	Salina	Seattle	Tacoma	Portland
1949	26,593,207	13,096,440	13,066,217	5,642,109	2,287,064	4,354,960	4,471,461	3,823,910	2,180,970	2,450,904
1948	26,917,564	18,571,124	13,844,079	5,977,890	2,858,569	5,431,756	4,894,231	4,272,981	3,062,674	3,784,001
1947	27,634,479	18,983,332	16,689,256	5,617,900	3,090,496	5,874,894	4,782,676	4,329,345	3,376,659	3,737,672
1946	35,069,650	15,858,116	16,621,891	5,459,720	3,626,176	5,194,580	3,771,632	2,465,438	5,069,788	3,278,530
1945	28,341,479	15,364,136	16,449,807	5,974,296	3,561,400	5,064,353	4,136,513	3,055,320	4,596,810	3,776,620
1944	24,849,958	13,756,573	14,793,549	6,106,619	3,264,973	4,630,468	4,673,630	3,627,570	3,999,462	3,381,040
1943	23,890,391	13,717,116	14,436,880	6,067,180	2,264,090	4,871,636	4,499,573	3,175,902	3,440,851	3,526,695
1942	20,466,663	12,092,784	11,693,138	5,681,100	1,551,284	4,209,676	4,617,148	2,769,947	3,356,163	3,386,673
1941	18,953,127	13,416,679	11,019,724	4,416,419	1,296,079	3,882,484	4,479,219	2,822,499	3,661,329	3,304,663
1940	18,314,551	13,373,613	10,273,484	3,981,207	1,561,448	3,478,996	4,511,173	2,696,094	3,767,562	3,704,613
1939	16,969,116	14,202,169	10,696,819	3,983,994	1,737,262	4,010,209	5,165,847	2,847,606	3,936,931	4,199,635
1938	19,991,823	14,659,896	12,638,375	4,059,099	1,620,968	3,775,971	4,504,761	2,365,957	3,828,347	3,918,347
1937	20,092,343	14,871,006	11,135,544	3,667,632	1,867,511	4,696,444	4,433,767	2,297,902	4,009,022	3,646,961
1936	20,433,057	12,167,376	12,647,237	4,104,567	1,861,969	4,239,388	4,163,148	2,459,367	3,262,699	3,522,176
1935	18,994,796	11,886,076	13,006,673	5,439,506	1,683,627	3,710,458	3,626,151	2,113,548	4,160,816	3,226,098
1934	18,056,071	11,479,095	13,546,387	3,517,835	2,006,256	3,636,182	3,463,251	2,300,226	3,632,562	2,239,635
1933	19,171,311	11,966,095	14,275,138	3,546,062	2,162,272	4,066,142	3,258,631	1,955,909	2,623,364	2,206,607
1932	19,184,575	13,881,269	14,166,287	4,349,977	2,199,736	4,567,776	3,728,145	2,237,744	2,638,351	2,511,063
1931	21,709,666	14,771,620	17,678,279	4,808,864	2,789,279	3,246,683	4,291,842	2,559,454	3,693,261	2,576,771
1930	24,949,941	15,228,165	21,162,890	4,559,895	4,021,528	3,660,809	3,748,279	2,613,447	3,969,683	2,254,187
1929	19,850,618	15,538,947	21,161,365	4,528,496	3,657,619	3,474,485	3,906,446	2,988,730	4,496,126	2,677,406
1928	18,717,667	14,927,964	28,997,753	3,831,069	3,229,984	3,560,282	3,794,212	2,998,960	3,961,934	2,315,852
1927	19,463,355	14,467,742	22,618,200	4,125,694	3,761,940	3,905,594	3,178,922	2,582,969	3,377,364	2,506,243
1926	17,956,750	13,111,299	23,214,766	3,922,646	3,832,513	4,022,069	2,688,187	2,292,894	2,907,546	2,491,480
1925	18,544,628	10,604,000	23,634,703	3,650,900	2,443,056	3,163,069	2,584,064	2,341,640	2,776,050	2,570,594
1924	12,697,674	10,227,321	22,981,095	3,646,554	2,508,222	4,034,903	2,216,219	2,862,559	2,317,567	2,964,476
1923	12,666,639	9,678,679	24,437,382	3,175,299	3,445,031	3,056,461	1,919,873	3,268,713	3,944,187	4,146,066
1922	13,137,641	9,227,609	30,659,904	3,646,000	2,976,382	3,757,378	3,396,881	3,884,048	3,653,831	3,873,107
1921	13,118,780	7,772,987	28,148,630	3,277,687	3,951,299	......	3,278,965	3,093,969	2,992,993	3,183,969
1920	16,278,864	7,050,063	28,606,185	1,823,643	2,624,719	......	......	3,656,547	2,778,613	3,744,974
1919	13,109,048	7,111,174	34,301,744	3,054,778	3,524,664	......	......	3,036,620	3,365,638	3,586,935
1918	11,557,512	4,840,768	28,251,107	3,191,109	2,746,635	......	......	2,529,140	2,809,155	4,395,226
1917	11,095,144	5,395,792	34,517,268	2,497,660	3,173,742	......	......	2,179,328	2,792,872	1,792,984
1916	11,550,796	5,108,611	38,341,634	3,062,892	3,431,343	......	......	2,134,146	2,808,151	1,777,032
1915	12,917,660	5,018,302	38,464,822	2,856,230	3,289,787	......	......	1,746,033	2,281,401	......
1914	11,799,958	4,658,606	34,827,769	2,907,680	2,674,998	......	......	1,996,038	2,671,131	......
1913	10,011,386	4,497,440	34,040,501	3,662,113	2,632,012	......	......	......	......	......

U.S. Production of Durum Products

Note: By six-month periods. **Source: USDA**

	Durum wheat ground, bu.	Semolina produced (sacks)	Flour produced (sacks)	Exports macaroni, etc., lb.
1949—				
July-December	11,062,779	*4,674,659	†	22,326,069
January-June	10,231,663	4,407,923	†	1,113,139
1948—				
July-December	11,453,355	*5,012,245	†	35,307,236
January-June	14,161,830	6,354,061	†	100,426,780
1947—				
July-December	13,996,973	5,363,194	794,123	41,314,594
January-June	9,036,292	4,029,958	196,163	22,892,997
1946—				
July-December	11,428,936	*5,163,498	**	46,252,127
January-June	9,674,674	3,842,316	723,562	25,656,078
1945—				
July-December	12,583,562	4,177,083	1,312,674	7,760,088
January-June	13,288,663	4,266,213	1,400,851	4,795,894
1944—				
July-December	13,789,977	3,609,752	1,790,595	7,738,271
January-June	8,172,805	3,146,844	784,744	3,891,971
1943—				
July-December	11,020,744	3,813,644	1,198,717	1,944,348
January-June	12,742,502	3,901,044	1,468,382	1,351,985
1942—				
July-December	11,127,794	3,347,735	1,348,212	1,899,624
January-June	9,641,356	2,937,754	1,086,154	1,425,961
1941—				
July-December	9,119,580	2,965,182	1,635,184	2,216,618
January-June	8,294,114	2,686,273	748,721	1,475,194
1940—				
July-December	8,194,442	2,318,839	911,207	1,707,292
January-June	7,210,271	2,394,695	772,248	1,382,893
1939—				
July-December	8,213,319	3,718,709	794,571	2,919,654
January-June	7,231,375	2,463,619	499,183	1,484,226
1938—				
July-December	7,590,458	2,440,839	313,159	1,763,847
January-June	8,541,551	2,218,483	181,883	1,345,889
1937—				
July-December	6,747,868	2,097,476	694,446	1,532,517
January-June	4,872,439	1,603,833	359,224	1,516,939

*Mostly granular flour. †Included in semolina. ‡July through November. **Granular and flour listed in semolina total since most mills continued on an 80% extraction rate throughout period.

U.S. Rye Flour Production

Note: By calendar years. Source: Bureau of the Census, U.S. Department of Commerce.

Month	Grain ground, bu.	Flour output, sacks	Offal produced, tons
	—000's omitted—		
1950—			
January	343	157	1,605
1949—			
December	318	144	1,586
November	431	203	1,789
October	466	224	2,133
September	423	192	2,238
August	378	167	2,061
July	357	160	1,966
June	396	179	1,942
May	329	146	1,635
April	307	135	1,675
March	388	174	2,061
February	403	154	1,950
January	379	168	2,230
Total, 1949	4,592	2,063	23,256
1948—			
December	417	184	2,237
November	419	182	2,512
October	451	195	2,649
September	327	130	2,361
August	353	169	2,449
July	351	153	2,172
June	394	177	2,284
May	345	151	2,143
April	485	212	2,281
March	447	206	2,099
February	518	241	2,404
January	366	163	2,131
Total, 1948	4,927	2,189	28,096
1947	4,389	1,942	24,618
1946	5,775	2,488	33,926
1945	4,431	2,004	21,364

Kansas City Flour Output

Note: By calendar years, in sacks. Source: The Northwestern Miller.

	1949	1948	1947	1946
Jan.	1,396,534	1,544,053	1,636,740	1,461,884
Feb.	1,111,211	1,428,766	1,517,917	1,473,877
Mch.	1,291,506	1,274,747	1,638,037	1,284,443
April	1,157,089	1,420,606	1,487,237	1,131,804
May	1,082,558	1,386,669	1,471,265	753,685
June	1,190,125	1,494,110	1,548,916	769,720
July	1,406,956	1,610,152	1,782,638	1,480,782
Aug.	1,220,442	1,652,844	1,661,296	1,652,880
Sept.	1,144,329	1,523,054	1,573,216	1,345,504
Oct.	1,335,636	1,684,815	1,715,029	1,524,067
Nov.	1,241,684	1,642,151	1,658,976	1,491,929
Dec.	1,284,288	1,729,186	1,491,272	1,575,947
Tot.	15,096,448	18,571,124	18,983,332	15,858,116

Minneapolis Flour Production

Note: By calendar years, in sacks. Source: The Northwestern Miller.

	1949	1948	1947	1946
Jan.	1,127,576	1,457,128	1,659,991	1,588,115
Feb.	1,056,225	1,256,944	1,473,149	1,401,896
Mch.	869,625	1,194,802	1,696,943	1,449,507
April	899,718	1,118,192	1,508,732	1,258,193
May	973,537	1,311,594	1,521,158	895,183
June	891,625	1,135,238	1,481,093	823,596
July	1,044,495	1,146,392	1,507,372	1,189,890
Aug.	1,179,260	1,299,109	1,317,674	1,517,719
Sept.	1,163,610	693,745	1,694,570	1,449,543
Oct.	1,304,619	793,837	1,741,594	1,709,185
Nov.	1,152,780	1,349,137	1,456,629	1,550,743
Dec.	1,117,963	1,115,755	1,394,189	1,344,924
Tot.	13,088,217	13,844,079	18,689,256	16,621,891

Buffalo Flour Production

Note: By calendar years, in sacks. Source: The Northwestern Miller.

	1949	1948	1947	1946
Jan.	2,342,986	2,191,578	2,298,988	2,485,470
Feb.	2,032,053	2,027,440	1,611,221	2,268,045
Mch.	2,009,121	1,883,640	2,314,628	2,519,301
April	1,630,865	1,799,922	2,079,936	1,861,413
May	1,984,244	2,099,345	2,497,528	1,749,537
June	2,295,352	2,383,081	2,423,863	1,902,564
July	2,150,485	2,395,121	1,896,419	2,217,662
Aug.	2,263,366	2,465,932	2,404,332	2,301,019
Sept.	2,395,058	2,317,494	2,463,741	2,098,759
Oct.	3,088,790	2,585,573	2,473,890	2,468,622
Nov.	2,388,288	2,309,087	2,362,283	2,403,489
Dec.	2,241,171	2,373,417	2,238,640	2,256,943
Tot.	26,593,207	26,917,564	27,634,479	25,868,650

U.S. Calendar Year Flour Production by States

Note: By calendar years. Since 1946 about 96% of totals are reported by the 400 largest mills and the balance estimated. Previously reports were from mills which produced approximately 90% of the flour in the U.S. In sacks, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	1949	1948	1947	1946	1945	1944	1943	1942	1941
Kansas	36,990	33,118	32,121	43,663	45,429	36,926	36,891	32,087	33,962
Minnesota	24,321	31,662	40,080	33,914	36,128	28,156	27,729	23,619	22,938
New York	28,141	29,161	32,478	33,456	32,928	29,691	27,988	24,341	24,580
Missouri	22,590	26,191	27,377	23,628	22,450	19,924	18,978	18,853	17,804
Texas	14,640	19,004	21,609	19,087	16,688	14,687	13,419	12,761	12,249
Illinois	17,129	14,187	14,522	13,649	14,741	13,278	12,336	11,128	10,606
Washington	9,128	11,781	12,639	12,914	13,216	13,192	11,072	10,063	9,664
Oklahoma	10,898	13,118	14,300	13,179	13,627	10,679	9,629	9,055	8,902
Ohio	9,313	9,199	9,142	9,377	9,761	9,211	9,249	9,847	8,699
Oregon	3,796	5,491	7,411	7,095	7,617	6,656	5,549	6,255	6,434
Nebraska	3,967	7,800	8,621	7,379	7,327	6,237	6,561	6,063	5,553
Indiana	3,185	4,155	4,453	4,306	3,971	3,494	3,327	3,749	4,505
California	4,551	4,900	4,964	4,465	4,845	4,725	4,321	4,325	4,452
Iowa	†	3,720	4,450	4,461	4,497	4,311	3,594	3,671	4,479
Montana	3,099	3,613	4,267	4,121	3,426	2,947	2,773	2,485	2,258
Tennessee	†	3,769	4,789	4,168	4,324	3,990	3,954	3,825	4,137
Michigan	4,354	4,628	4,452	4,361	4,065	3,508	3,299	3,296	3,618
Kentucky	†	3,813	4,633	3,627	3,541	3,132	3,294	3,459	3,200
Pennsylvania	†	3,401	3,974	2,239	2,021	1,664	1,819	2,011	3,178
Colorado	4,368	3,149	5,497	4,363	4,269	3,063	2,744	2,329	2,206
So. Dakota	1,457	1,587	4,782	4,186	4,089	3,143	2,987	2,554	2,423
Utah	1,942	3,794	3,693	3,293	3,344	2,904	2,726	2,816	2,469
Virginia	†	3,461	2,913	3,336	3,319	2,773	3,011	3,364	3,281
No. Carolina	†	2,740	2,442	1,792	1,790	1,601	1,681	1,902	1,914
Wisconsin	1,213	2,818	2,481	2,161	2,922	2,119	2,119	1,868	1,897
Maryland	†	1,491	1,437	1,431	1,424	945	628	313	394
Idaho	†	2,759	2,363	2,248	1,667	1,446	1,159	992	1,006
Georgia	†	533	753	609	791	611	497	360	491
So. Carolina	†	319	284	325	319	235	237	138	237
W. Virginia	†		†133	328	282	213	217	147	188
Others*	11,942	3,332	3,947	3,360	2,177	1,907	1,817	1,953	1,448
U. S.	**233,719	*279,133	*301,499	272,197	269,904	236,349	229,779	212,918	207,768

*Revised. **Preliminary. †Included under Others.

U.S. Crop Year Flour Production by States

Note: By crop years ending June 30. Since 1947 about 96% of the totals are reported by the 400 largest mills and the balance estimated. Previously reports were from mills which produced approximately 90% of the flour in the U.S. In sacks, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

State—	1948-49	1947-48	1946-47	1945-46	1944-45	1943-44	1942-43	1941-42
Kansas	37,719	33,994	39,738	40,433	37,696	36,455	34,944	31,066
Minnesota	28,754	34,078	39,438	33,290	32,477	27,727	26,676	22,613
New York	29,227	29,534	34,246	32,743	30,327	28,949	27,078	26,305
Missouri	23,218	26,431	26,193	23,894	20,667	19,841	19,283	16,331
Texas	17,537	20,491	21,269	18,497	16,769	14,434	12,760	12,344
Illinois	13,336	13,889	13,742	13,207	14,553	12,899	12,058	10,652
Washington	11,116	10,133	12,510	13,417	12,376	12,179	11,457	8,197
Oklahoma	12,094	13,893	13,961	11,262	11,628	10,467	9,673	8,692
Ohio	8,813	9,278	9,410	9,545	8,443	9,173	10,371	6,949
Nebraska	7,068	8,106	8,529	7,822	6,768	6,431	6,426	6,108
Oregon	3,403	6,267	7,631	7,285	7,579	6,436	6,138	6,194
Indiana	3,544	4,529	4,499	3,846	3,289	3,712	3,591	3,978
California	4,377	4,265	4,094	4,449	4,690	4,453	4,461	4,182
Iowa	....	....	4,782	4,286	4,197	3,944	3,833	4,129
Michigan	4,442	4,485	4,536	4,383	3,732	3,265	3,307	2,972
Colorado	3,016	3,531	3,319	4,293	3,733	2,854	2,532	2,063
Montana	3,517	3,713	4,169	3,933	3,065	2,929	2,746	2,343
Tennessee	....	....	4,872	3,694	4,186	3,918	3,939	3,661
Utah	3,716	3,483	3,517	3,244	3,229	2,774	2,745	2,469
Kentucky	....	....	3,779	3,471	3,389	3,498	3,319	3,249
Pennsylvania	....	....	2,735	2,096	1,774	1,558	2,009	3,147
North Dakota	3,121	3,851	4,726	4,038	3,033	2,958	2,660	2,494
Wisconsin	2,313	2,497	2,291	3,065	2,674	2,106	2,063	1,916
North Carolina	....	....	1,899	3,083	1,586	1,549	1,787	1,979
Virginia	....	....	3,711	3,335	2,943	2,961	3,114	3,261
Idaho	....	....	2,381	2,124	1,658	1,244	993	1,109
Maryland	....	....	1,415	1,361	1,243	911	513	286
South Carolina	....	....	311	286	290	231	233	247
Georgia	431	149	784	534	693	614	600	683
West Virginia	....	....	311	369	226	236	186	167
Others*	33,397	36,184	2,627	2,117	1,984	1,761	1,929	1,953
United States	255,943	266,296	301,718	284,635	252,278	234,763	224,812	208,461

*The production for 1948-49 and 1947-48 for Iowa, Tennessee, Kentucky, Pennsylvania, North Carolina, Virginia, Idaho, Maryland, South Carolina, West Virginia and Wyoming is included under Others.

Minneapolis Flour Mills

Note: Daily capacity in sacks. Source: The Northwestern Miller.

Atkinson Milling Co.	3,540
General Mills, Inc., Central Division	30,100
King Midas Flour Mills	3,200
Minneapolis Milling Co. (Nokomis)	4,000
Pillsbury Mills, Inc.	12,000
A. L. Stanchfield, Inc., Priority Mills	3,000
Russell-Miller Milling Co.	4,100
Standard Milling Co.	6,000
Total	65,940

Buffalo Flour Mills

Note: Daily capacity in sacks. Source: The Northwestern Miller.

Buffalo Flour Mills Corp. (Operated by Commander-Larabee Mfg. Co.)	10,000
General Mills, Inc., Eastern Division	37,000
International Milling Co.	14,000
Pillsbury Mills, Inc.	22,000
Russell-Miller Milling Co.	9,000
Standard Milling Co.	6,000
George Urban Milling Co.	3,000
Total	101,000

Largest Milling Firms

U.S. milling companies, which own and operate one or more mills, with a combined daily capacity of 5,000 sacks or over:

	No. of mills	Capacity
General Mills, Inc., Minneapolis, Minn.	23	142,300
Pillsbury Mills, Inc., Minneapolis, Minn.	8	78,700
International Milling Co., Minneapolis, Minn.	12	55,800
Russell-Miller Milling Co., Minneapolis, Minn.	10	43,000
Colorado Milling & Elevator Co., Denver, Colo.	18	38,800
Commander-Larabee Milling Co., Minneapolis, Minn.	6	36,340
Flour Mills of America, Inc., Kansas City, Mo.	5	32,190
Standard Milling Co., Chicago, Ill.	4	27,500
Tex-O-Kan Flour Mills Co., Dallas, Texas	5	27,415
National Biscuit Co., New York, N. Y.	3	22,200
King Midas Flour Mills, Minneapolis, Minn.	2	19,000
Dixie-Portland Flour Co., Memphis, Tenn.	3	16,900
Rodney Milling Co., Kansas City, Mo.	3	13,600
Fisher Flouring Mills Co., Seattle, Wash.	1	13,000
Centennial Flouring Mills Co., Seattle, Wash.	3	12,500
Kansas Milling Co., Wichita, Kansas	3	11,600
Quaker Oats Co., Chicago, Ill.	4	*11,111
Acme-Evans Co., Inc., Indianapolis, Ind.	2	11,000
Montana Flour Mills Co., Great Falls, Mont.	5	11,000
Sunshine Biscuits, Inc., Milling Division	1	10,710
Arrow Mills, Inc., Houston, Texas	3	10,100
Igleheart Bros., Inc., Evansville, Ind.	1	9,000
Midland Flour Milling Co., Kansas City, Mo.	1	8,600
Bay State Milling Co., Winona, Minn.	1	8,000
Nebraska Consolidated Mills Co., Omaha, Neb.	3	8,500
North Dakota Mill & Elevator, Grand Forks, N. D.	1	8,000
Consolidated Flour Mills Co., Wichita, Kansas	3	7,800
Ismert-Hincke Milling Co., Kansas City, Mo.	2	7,400
Eagle Roller Mill Co., New Ulm, Minn.	2	7,400
B. A. Eckhart Milling Co., Chicago, Ill.	1	6,500
Atkinson Milling Co., Minneapolis, Minn.	1	5,500
Ballard & Ballard Co., Inc., Louisville, Ky.	1	5,400
Mennel Milling Co., Toledo, Ohio	1	5,000
Wichita Flour Mills Co., Wichita, Kansas	1	5,000
William Kelly Milling Co., Hutchinson, Kansas	1	5,000
Gooch Milling & Elevator Co., Lincoln, Neb.	1	5,000
Totals	154	759,358

*Canadian capacity 3,800 bbl.

Canadian Milling Capacity

Note: By provinces. Source: The Northwestern Miller

FLOUR MILLS—1950

	No. mills	Bbls. daily
Nova Scotia	10	100
New Brunswick	7	276
Prince Edward Island	3	319
Quebec	83	22,078
Ontario	153	38,758
Manitoba	30	11,415
Saskatchewan	37	21,341
Alberta	73	18,283
British Columbia	8	3,334
	399	113,883

PREVIOUS TOTALS, BBL.

1949	111,558	1943	105,925
1948	110,389	1942	106,420
1947	108,160	1941	109,020
1946	107,915	1940	106,790
1945	106,946	1939	109,235
1944	102,670		

OATMEAL MILLS
(Daily Capacity, Bbl.)

1950	5,275	1944	5,175
1949	5,275	1943	5,075
1948	5,375	1942	5,375
1947	5,375	1941	5,375
1946	5,375	1940	5,575
1945	5,375	1939	5,525

Flour Production, Southwestern Mills, by Months

Note: By 55 representative "interior" mills, together with all mills at Kansas City, Wichita, Salina and Atchison. In sacks. Source: The Northwestern Miller.

	1949	1948	1947	1946	1945	1944
January	4,993,508	5,548,872	6,768,762	6,250,911	5,625,667	5,696,961
February	5,093,554	5,800,660	6,138,151	6,146,927	5,179,457	5,338,920
March	5,497,856	5,595,714	6,767,711	5,457,309	5,788,332	5,878,140
April	4,876,180	4,723,636	6,093,581	5,928,555	5,287,881	4,420,055
May	5,517,408	5,153,678	6,391,903	3,821,248	5,713,073	5,638,856
June	5,959,116	5,431,009	6,174,459	3,676,793	5,877,866	4,665,069
Totals	31,837,516	37,141,738	38,596,130	30,152,924	33,283,489	30,127,604
July	5,725,557	6,816,742	7,084,097	5,895,921	5,147,338	4,808,913
August	5,283,614	6,462,364	6,803,425	6,304,412	5,955,149	5,160,206
September	5,351,190	6,229,444	6,452,708	5,720,340	5,477,592	5,180,667
October	5,909,464	6,622,874	6,929,921	6,299,373	6,059,842	5,758,137
November	5,225,743	5,694,192	6,279,928	6,187,291	5,419,419	5,125,077
December	5,158,034	5,814,583	6,448,589	5,583,578	5,438,285	5,813,087
Totals	32,474,141	38,307,474	40,017,733	37,007,764	33,913,627	30,565,265
Grand totals	64,302,661	77,508,212	78,605,863	67,188,690	67,182,167	60,622,869

U.S. Flour Milling Capacity

United States flour milling capacity is summarized as follows, by states, in The Northwestern Miller's "List of Flour Mills in the United States and Canada," which includes all wheat flour manufacturing establishments in the United States with a 24-hour capacity rating of 10 sacks or more known to be active or potentially active on Jan. 1, 1948, as compared with those so recorded on Jan. 1, 1946:

	1948 No.	1948 Capacity	1946 No.	1946 Capacity
Alabama	5	2,279	4	2,479
Arizona	4	1,820	6	2,229
Arkansas	11	2,632	15	1,409
California	26	18,558	15	17,149
Colorado	29	19,894	25	19,788
Connecticut	2	280	2	480
Delaware	21	1,939	19	1,818
D. of C.	1	400	1	400
Florida	1	....	1	....
Georgia	27	5,530	26	5,146
Idaho	33	10,718	29	11,908
Illinois	54	75,218	45	73,733
Indiana	134	34,324	88	31,879
Iowa	24	21,150	18	17,430
Kansas	83	173,925	73	179,560
Kentucky	115	28,993	106	26,238
Louisiana	1	159	1	109
Maine	3	260	2	100
Maryland	61	13,942	63	14,077
Mass.	2	250	1	200
Michigan	159	33,795	118	31,384
Minnesota	80	142,823	71	141,807
Mississippi	2	490	3	2,300
Missouri	106	106,675	82	111,853
Montana	33	17,182	24	17,461
Nebraska	52	24,907	53	26,541
Nevada	8	419	3	250
New Hamp.	1	1,200	1	1,200
N. Jersey	10	[illegible]	7	[illegible]
N. Mexico	17	[illegible]	12	[illegible]
New York	32	117,778	31	115,115
N. Carolina	168	17,834	171	17,644
N. Dakota	29	11,194	16	14,460
Ohio	150	53,257	131	57,844
Oklahoma	38	[illegible]	35	38,351
Oregon	24	28,526	21	28,626
Pennsylv'a.	249	33,617	231	30,784
S. Carolina	49	3,935	36	3,440
S. Dakota	15	4,029	13	4,229
Tennessee	113	36,114	111	36,712
Texas	47	81,883	45	84,748
Utah	46	13,349	27	13,994
Virginia	394	45,183	324	37,897
Washington	38	33,418	28	41,799
W. Virginia	54	8,468	63	7,726
Wisconsin	74	13,064	41	10,830
Wyoming	9	2,980	4	2,480
Totals	2,511	1,338,538	2,153	1,331,183

Mills in the Southwest

KANSAS CITY	
Kansas Flour Mills Co.	14,000
Larabee Flour Mills Co. (Monarch mill)	11,770
Midland Flour Milling Co.	5,100
Rodney Milling Co.	8,400
Standard Milling Co.	13,000
United Mills Co., Inc.	4,900
General Mills, Inc., Central Div.	12,200
Total	85,770
Waggoner-Gates Milling Co. (Independence, Mo.)	3,300
Total	[illegible]
ATCHISON	
Blair Milling Co.	4,600
Pillsbury Mills, Inc.	5,500
Total	10,100
SALINA	
Weber Flour Mills Co.	4,000
Robinson Milling Co.	2,700
Shellabarger's, Inc.	6,700
Western Star Mill Co.	3,000
Total	16,400
SHERMAN	
Fant Milling Co.	2,800
Quaker Oats Co.	2,518
Total	5,318
DALLAS-FORT WORTH	
Dallas—Morten Milling Co.	7,300
Russell-Miller Milling Co.	2,900
Fort Worth—Bewley Mills	3,500
Burrus Mill & Elevator Co.	8,400
Universal Mills	3,500
Total	25,100
WICHITA	
Kansas Milling Co.	8,000
General Mills, Inc., Central Div.	2,650
Wichita Flour Mills Co.	5,000
Total	[illegible]
OMAHA	
Omaha Flour Mills Co.	4,500
Maney Milling Co.	4,100
Nebraska Consolidated Mills	3,200
Total	11,800
HUTCHINSON	
William Kelly Milling Co.	5,000
Larabee Flour Mills Co.	4,900
Total	9,900
ST. LOUIS	
Saxony Mills	2,600
Valier & Spies Milling Co.	10,000
Total	12,600

Canadian Mill Activity

Note: By crop years ending July 31, in barrels. Source: Dominion Bureau of Statistics.

	1947-48 Output bbl.	1947-48 % operation	1948-49 Output bbl.	1948-49 % operation
August	2,033,384	80.2	1,819,752	81.4
September	2,181,339	102.5	2,174,417	97.4
October	2,111,101	98.6	1,969,299	78.9
November	2,138,161	93.3	1,926,427	75.8
December	1,891,219	66.6	1,727,899	67.6
January	2,035,930	73.8	1,469,421	60.1
February	1,798,278	76.7	1,492,171	60.8
March	1,874,741	72.2	1,715,663	61.9
April	1,886,239	75.8	1,586,961	61.4
May	1,732,363	71.2	1,569,541	63.3
June	1,915,411	71.2	1,665,544	64.9
July	1,814,387	73.2	1,443,189	59.6
Totals	23,213,741	75.2	20,328,528	67.3

Canadian Mill Capacity

Note: Daily capacity in barrels. Source: The Northwestern Miller.

Port Colborne	12,000
Keewatin	10,500
Montreal	8,000
Winnipeg-St. Boniface, Man.	9,575
Saskatoon, Sask.	8,000
Calgary	7,000
Medicine Hat, Alta.	5,400
Peterboro, Ont.	4,150
Moose Jaw, Sask.	100
Toronto, Ont.	5,875
Goderich, Ont.	2,500
Humberstone, Ont.	3,000
Lethbridge, Alta.	1,250
Midland, Ont.	1,200
St. Mary's, Ont.	1,000
Brantford, Ont.	850

Besides these large merchant mills, there are several hundred smaller country mills scattered over the various provinces. The total flour milling capacity of Canada on Jan. 1, 1949, was 112,333 bbl.

Canadian Flour Output

Note: By crop years ending July 31, in barrels. Source: Dominion Bureau of Statistics.

	Production	Exports
August	1,819,752	942,152
September	2,174,417	615,658
October	1,969,299	1,446,463
November	1,926,427	1,212,229
December	1,727,899	846,172
January	1,469,421	854,741
February	1,492,171	684,917
March	1,715,663	892,676
April	1,586,961	746,280
May	1,569,541	918,474
June	1,665,544	681,763
July	1,443,189	784,977
1948-49	20,328,529	10,718,961
	Total Canada	Wheat flour exported
1947-48	24,158,690	13,961,571
1946-47	28,588,456	17,880,108
1945-46	26,453,241	12,736,177
1944-45	24,664,601	13,913,622
1943-44	24,788,877	13,464,371
1942-43	23,545,707	12,575,215
1941-42	19,908,741	10,205,778
1940-41	19,597,769	10,268,827
1939-40	17,749,764	6,781,267
1938-39	15,224,685	4,884,245
1937-38	12,849,961	3,000,664
1936-37	14,276,607	4,626,664
1935-36	14,910,389	6,073,817

Seattle-Tacoma Flour Mills

Note: Daily capacity in sacks. Source: The Northwestern Miller.

Seattle—	
Fisher Flouring Mills Co.	12,000
Novelty Mill Co.	400
Total	12,400
Tacoma—	
Dennett Milling Co. (idle)	240
General Mills, Inc., Sperry Division	12,000
Total	12,240

Chicago Flour Mills

Note: Daily capacity in sacks. Source: The Northwestern Miller.

B. A. Eckhart Milling Co.	5,500
Elam Mills	400
General Mills, Inc., Central Division	6,600
Total	12,500

Duluth-Superior Flour Mills

Note: Daily capacity in sacks. Source: The Northwestern Miller.

Duluth Universal—Duluth Universal Milling Co.	1,500
Daisy Mill (King Midas Flour Mills), Minneapolis	4,000
Total	5,500

Canadian Flour Production

Note: By calendar years, in barrels. Source: Dominion Bureau of Statistics.

1949	19,818,758	1944	24,292,665
1948	22,505,832	1943	24,474,894
1947	28,057,482	1942	20,769,298
1946	27,373,239	1941	19,471,247
1945	25,058,214		

Canadian Oatmeal Output

Note: Including rolled oats, by crop years, ending July 31, in sacks (100 lb.). Source: Dominion Bureau of Statistics.

Crop years	Production	Exports
1948-49*	1,165,123	295,784
1947-48	1,473,595	790,984
1946-47	2,102,395	1,314,423
1945-46	2,124,287	1,047,861
1944-45	2,157,096	1,345,098
1943-44	1,728,405	422,631
1942-43	1,922,495	184,337
1941-42	1,504,965	1,151,953
1940-41	1,377,948	641,965
1939-40	2,150,926	1,338,790
1938-39	1,474,531	782,214

*Preliminary.

Regulations Covering Milling in Bond

The following summary gives the text of the sections of the U.S. tariff act of 1930 relating to the grinding of wheat in bond, and also brief notes as to the regulations of the Department of the Treasury in connection with the administration of these sections of the law.

GRINDING IN BOND

Sec. 311. All articles manufactured in whole or in part of imported materials, or of materials subject to internal-revenue tax, and intended for exportation without being charged with duty, and without having an internal-revenue stamp affixed thereto, shall, under such regulations as the Secretary of the Treasury may prescribe, in order to be so manufactured and exported, be made and manufactured in bonded warehouses similar to those known and designated in Treasury Regulations as bonded warehouses, class six: Provided, That the manufacturer of such articles shall first give satisfactory bonds for the faithful observance of all the provisions of law and of such regulations as shall be prescribed by the Secretary of the Treasury.

(Note.—An Act of Congress approved June 12, 1934, amends the Tariff Act of 1930 by adding thereto a new provision (Sec. 350) authorizing the President, among other things, to enter into trade agreements with foreign governments. This was extended March 1, 1937, April 12, 1940 and again June 7, 1943. The act of 1934 relates to the application of the paragraph of Sec. 311 quoted above, the pertinent text being as follows: "The third paragraph of Section 311 of the Tariff Act of 1930 shall apply to any agreement concluded pursuant to this act to the extent only that such agreement assures to the U.S. a rate of duty on wheat flour produced in the U.S. which is preferential in respect to the lowest rate of duty imposed by the country with which such agreement has been concluded on like flour produced in any other country; and upon the withdrawal of wheat flour from bonded manufacturing warehouses for exportation to the country with which such agreement has been concluded, there shall be levied, collected and paid, on the imported wheat used, a duty equal to the amount of such assured preference.")

Whenever goods manufactured in any bonded warehouse established under the provisions of the preceding paragraph shall be exported directly therefrom or shall be duly laden for transportation and immediate exportation under the supervision of the proper officer who shall be duly designated for that purpose, such goods shall be exempt from duty and from the requirements relating to revenue stamps.

No flour, manufactured in a bonded manufacturing warehouse from wheat imported after 90 days after the date of the enactment of this Act, shall be withdrawn from such warehouse for exportation without payment of a duty on such imported wheat equal to any reduction in duty which by treaty will apply in respect to such flour in the country to which it is to be exported.

Any materials used in the manufacture of such goods, and any packages, coverings, vessels, brands and labels used in putting up the same may, under the regulations of the Secretary of the Treasury, be conveyed without the payment of revenue tax or duty into any bonded manufacturing warehouse, and imported goods may, under the aforesaid regulations, be transferred without the exaction of duty from any bonded warehouse into any bonded manufacturing warehouse; but this privilege shall not be held to apply to implements, machinery, or apparatus to be used in the construction or repair of any bonded manufacturing warehouse or for the prosecution of the business carried on therein.

BY-PRODUCTS RETAINED

Articles or materials received into such bonded manufacturing warehouse or articles manufactured therefrom may be withdrawn or removed therefrom for direct shipment and exportation or for transportation and immediate exportation in bond to foreign countries or to the Philippine Islands under the supervision of the officer duly designated therefor by the collector of the port, who shall certify to such shipment and exportation, or lading for transportation, as the case may be, describing the articles by their mark or otherwise, the quantity, the date of exportation, and the name of the vessel: Provided, That the by-products incident to the processes of manufacture, including waste derived from cleaning rice in bonded warehouses under the act of March 24, 1874, in said bonded warehouses may be withdrawn for domestic consumption on the payment of duty equal to the duty which would be assessed and collected by law if such waste or by-products were imported from a foreign country: Provided, That all waste material may be destroyed under government supervision. All labor performed and services rendered under these provisions shall be under the supervision of a duly designated officer of the customs and at the expense of the manufacturer.

A careful account shall be kept by the collector of all merchandise delivered by him to any bonded manufacturing warehouse, and a sworn monthly return, verified by the customs officers in charge, shall be made by the manufacturer containing a detailed statement of all imported merchandise used by him in the manufacture of exported articles.

Before commencing business the proprietor of any manufacturing warehouse shall file with the Secretary of the Treasury a list of all the articles intended to be manufactured in such warehouse, and state the formula of manufacture and the names and quantities of the ingredients to be used therein.

Articles manufactured under these provisions may be withdrawn under such regulations as the Secretary of the Treasury may prescribe for transportation and delivery into any bonded warehouse at an exterior port for the sole purpose of immediate export therefrom.

The provisions of Section 3433 of the Revised Statutes shall, so far as may be practicable, apply to any bonded manufacturing warehouse established under this Act and to the merchandise conveyed therein.

DRAWBACK

Sec. 313. (a) Articles made from imported merchandise.—Upon the exportation of articles manufactured or produced in the U.S. with the use of imported merchandise, the full amount of the duties paid upon the merchandise so used shall be refunded as drawback, less 1 per centum of such duties, except that such duties shall not be so refunded upon the exportation of flour or by-products produced from wheat imported after 90 days after the date of the enactment of this Act. Where two or more products result from the manipulation of imported merchandise, the drawback shall be distributed to the several products in accordance with their relative values at the time of separation.

BONDED WAREHOUSES

Sec. 555. Bonded Warehouses. Buildings or parts of buildings and other inclosures may be designated by the Secretary of the Treasury as bonded warehouses for the storage of imported merchandise entered for warehousing, or taken possession of by the collector, or under seizure, or for the manufacture of merchandise in bond, or for the repacking, sorting or cleaning of imported merchandise. Such warehouses may be bonded for the storing of such merchandise only as shall belong or be consigned to the owners or proprietors thereof and be known as private bonded warehouses, or for the storage of imported merchandise generally and be known as public bonded warehouses. Before any imported merchandise not finally released from customs custody shall be stored in any such premises, the owner or lessee thereof shall give a bond in such sum and with such sureties as may be approved by the Secretary of the Treasury to secure the Government against any loss or expense connected with or arising from the deposit, storage or manipulation of merchandise in such warehouse. Except as otherwise provided in this Act, bonded warehouses shall be used solely for the storage of imported merchandise and shall be placed in charge of a proper officer of the customs, who, together with the proprietor thereof, shall have joint custody of all merchandise stored in the warehouse; and all labor on the merchandise so stored shall be performed by the owner or proprietor of the warehouse, under supervision of the officer of the customs in charge of the same, at the expense of the owner or proprietor. The compensation of such officer of the customs and other customs employees appointed to supervise the receipt of merchandise into any such warehouse and deliveries therefrom shall be reimbursed to the Government by the proprietor of such warehouse.

REGULATIONS

Owing to the many provisions and the changes in regulations prescribed by the Department of the Treasury for bonded manufacturing warehouses, any miller desiring to grind wheat in bond should apply to the Secretary of the Treasury for the latest regulations on the subject. In general, the regulations prescribe that buildings or parts of buildings and other inclosures may be designated as bonded manufacturing warehouses. The amount of the bond depends on the quantity of imported wheat handled. It is necessary that a customs storekeeper be present at all times while the warehouse is in operation, and the proprietor is required to reimburse the government for the storekeeper's salary.

Canadian Wheat Ground

Note: By crop years, Aug. 1 to July 31, in bushels. Source: Dominion Bureau of Statistics.

	Division		Total
	Eastern	Western	Canada
1948-49	49,112,856	53,457,578	95,570,518
1947-48	54,342,881	55,863,784	110,206,681
1946-47	65,163,516	62,331,418	127,494,934
1945-46	59,905,898	57,753,438	117,659,336
1944-45	54,626,517	54,837,871	109,464,388
1943-44	43,171,233	64,800,508	107,971,741
1942-43	52,042,153	52,765,648	104,807,801
1941-42	44,611,899	43,372,771	87,984,670
1940-41	44,021,564	47,998,148	92,019,712
1939-40	46,241,816	46,050,880	92,292,796

Toronto Flour Prices

Note: Top patent spring wheat flour, per barrel. Source: The Northwestern Miller.

	1949	1948	1947	1946	1945	1944
Jan.	$9.65	$8.34	$5.05	$5.05	$5.05	$5.05
Feb.	9.60	8.62	5.05	5.05	5.05	5.05
March	9.93	8.47	5.05	5.05	5.05	5.05
April	10.89	8.43	5.05	5.05	5.05	5.05
May	10.90	8.45	5.05	5.05	5.05	5.05
June	10.90	8.45	5.55	5.05	5.05	5.05
July	11.00	8.45	5.05	5.05	5.05	5.05
Aug.	11.00	8.11	5.05	5.05	5.05	5.05
Sept.	11.00	8.50	6.67	5.05	5.05	5.05
Oct.	11.24	8.60	8.10	5.05	5.05	5.05
Nov.	11.00	8.60	8.10	5.05	5.05	5.05
Dec.	11.10	8.85	8.40	5.05	5.05	5.05
Avge.	$10.42	$8.54	$6.17	$5.05	$5.05	$5.05

U.S. Flour Milling Capitals

Philadelphia, 1780 to 1800.
Baltimore, Md., 1800 to 1828.
Richmond, Va., 1828 to 1834.
Rochester, N.Y., 1834 to 1860.
St. Louis, Mo., 1860 to 1882.
Minneapolis, Minn., 1882 to 1930.
Buffalo, N.Y., since 1930.

Midland Flour Mills Limited
WINNIPEG, CANADA
CABLE ADDRESS "MIDLAND"
SPECIALIZING IN DOMESTIC and EXPORT FLOUR
DURUM FLOUR — DURUM SEMOLINA
and DURUM GRANULAR
Millers of
SWEETHEART — MIDLAND — WHEATLAND —
VITA-BAKE — MANITOBA MAID

U.S. Exports of Wheat Flour to Countries of Destination for 1932-1949

Note: In sacks, 000's omitted. Included are: Flour made entirely from U.S. wheat (including flour made from wheat imported in bond), other wheat flour, and exports under the Department of the Army Civilian Supply Program for 1948 and 1949. Not included are: Semolina for the years 1940-49, shipments to the U.S. Armed Forces and U.S. government agencies and shipments between continental U.S. and the U.S. territories and possessions. Source: Bureau of the Census, U.S. Department of Commerce.

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Albania	....	....	....	....	....	....	....	....	....	....	....	....	....	151	13	....	1	....
Argentina	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	1	....
Austria	18	25	....	....	....	....	....	....	....	....	....	....	....	....	793	1,756	2,888	1,119
Azores & Madeira Islands	4	8	3	3	11	12	8	2	18	20	20	24	36	....	21	34	41	39
Barbados	2	2	....	....	....	9	12	14	6	4	24	26	28	2	16	24	37	41
Belgian Congo	16	14	25	20	22	24	21	29	45	52	69	65	104	109	79	101	132	107
Belgium	16	14	8	16	19	16	19	32	2	....	....	....	....	326	2,304	1,121	271	2
Bermuda	....	....	6	....	2	....	....	8	4	12	27	12	....	2	....	....	....	....
Bolivia	8	6	8	....	6	29	28	14	9	12	19	4	7	451	282	452	329	334
Brazil	65	321	316	127	135	116	74	89	139	258	167	184	474	2,020	4,729	4,088	7,299	1,414
British Guiana	2	....	....	2	....	2	8	4	2	4	....	....	....	1	....	....	....	....
British Honduras	12	8	....	2	3	18	31	47	35	76	44	84	83	84	43	33	42	86
British Malaya	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	308	89	....
British W. Africa*	174	198	155	196	235	237	288	263	127	182	194	146	199	203	132	314	225	422
Other B. W. Indies**	27	13	6	....	18	18	16	11	....	1	14	....	1	1	7	....	1	....
British S. Africa†	3	....	2	2	2	2	2	6	6	69	31	....	....	2	....	272	19	3
Canada	10	12	8	8	29	110	160	147	142	73	8	87	118	113	42	33	85	21
Canary Islands	22	12	19	4	2	4	....	....	8	....	....	....	....	33	45	....	....	....
Ceylon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2,183	....	....
Chile	24	18	....	....	1	1	8	12	....	....	....	....	....	1	....	24	189	61
China	2,153	80	646	16	13	33	461	2,641	2,068	2,513	....	....	....	412	1,804	669	1,748	161
Colombia	27	6	5	12	19	15	16	22	24	18	26	28	41	262	44	184	191	76
Costa Rica	142	169	196	103	182	198	214	224	215	233	101	218	290	163	116	210	103	237
Cuba	1,536	1,482	1,735	1,977	2,006	2,003	2,042	2,448	1,858	2,171	2,749	2,862	2,824	4,488	2,420	3,467	2,117	2,897
Czechoslovakia	....	....	....	....	....	....	....	....	....	....	....	....	....	257	847	419	1	....
Denmark	186	84	43	22	20	4	5	8	....	....	....	....	....	....	....	141	2	....
Dominican Repub.	137	135	104	108	88	88	92	103	96	192	112	122	281	271	206	158	226	147
Dutch E. Indies††	4	2	2	2	3	....	3	4	2	3	....	....	....	421	542	1,070	1,488	1,373
Dutch W. Indies†††	88	71	71	82	82	69	109	125	79	119	145	165	134	127	130	125	140	24
Ecuador	129	73	76	81	132	203	208	276	177	261	461	123	419	652	342	488	335	291
Egypt	274	251	265	322	333	321	357	197	29	310	13	....	....	722	496	135	....	43
Eire	170	110	33	10	....	....	8	2	....	....	....	....	....	....	178	1,058	457	38
El Salvador	182	153	104	83	41	67	43	51	49	77	85	118	118	194	72	158	154	158
Finland	86	41	27	28	12	40	36	6	....	42	....	....	....	....	188	1,181	1	....
France	6	2	14	12	24	22	24	28	....	....	....	....	....	....	2,222	3,279	3,966	204
French Africa***	58	60	83	98	129	96	88	39	14	26	16	....	134	353	357	711	183	221
French Guiana	2	2	8	15	16	16	8	....	12	18	14	24	10	20	18	18	17	28
French Indo-China	2	2	....	....	....	....	....	....	....	....	....	....	....	13	....	....	....	12
French W. Indies	274	274	280	208	208	231	255	126	218	143	274	181	400	495	291	311	333	644
Germany	114	48	35	37	33	24	8	2	....	....	....	....	....	8	3,342	8,293	14,873	2,483
Gibraltar	....	....	....	....	2	8	6	4	....	....	....	....	....	1	....	....	....	....
Greece	6	5	20	35	33	22	30	49	18	....	....	....	....	155	1,200	3,622	4,131	1,909
Guatemala	231	236	256	194	161	206	206	213	172	183	218	183	192	241	186	215	379	327
Haiti	361	341	341	311	262	266	189	179	149	154	174	174	413	422	219	301	371	435
Honduras	63	59	61	53	40	26	30	41	24	33	28	28	58	78	48	77	43	93
Hong Kong	839	584	367	135	63	493	449	766	298	709	....	....	....	6	421	79	37	413
Hungary	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	23	1	....
Iceland	....	....	6	6	2	....	18	18	41	67	49	53	55	31	....	47	41	118
India	....	....	....	....	....	....	....	....	....	....	....	....	....	1	392	1,476	1,886	3
Iraq	....	....	....	....	....	....	....	....	....	....	....	....	....	22	....	....	....	....
Iran	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	207	13
Italy	103	161	14	6	....	....	24	2	....	....	....	....	1	367	3,932	9,622	8,998	4,197
Jamaica	15	5	4	5	4	22	65	61	6	6	20	63	66	197	199	283	413	493
Japan	10	2	5	18	8	16	2	373	....	27	....	....	....	....	....	....	2,022	1,088
Korea	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	907	430
Kwangtung	38	47	53	....	2	29	....	539	....	....	....	....	....	....	....	....	....	....
Lebanon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	197	....
Liberia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	47	8
Malta, Gozo, Cyprus	35	47	42	16	7	6	20	2	....	....	....	....	....	....	....	2	....	....
Mexico	12	6	29	21	16	63	10	16	23	21	10	66	1,246	325	1,276	449	164	....
Morocco (French)	....	....	....	....	....	16	16	....	6	35	....	6	11	....	6	192	60	....
Netherlands	284	220	159	200	620	913	933	1,778	353	....	....	....	....	16	1,488	3,849	3,699	1,199
Newfoundland & Labrador	240	123	108	216	244	210	238	229	174	221	98	48	70	18	34	74	63	4
Nicaragua	93	110	118	109	73	77	61	109	112	119	112	108	144	143	115	154	125	187
Norway	265	257	248	202	202	259	263	475	269	....	....	....	....	108	663	948	679	932
Palestine	4	27	25	53	51	79	110	314	53	31	....	....	....	....	6	....	191	198
Panama (including Canal Zone)	229	239	233	245	261	247	263	244	204	309	448	259	247	301	206	252	297	248
Peru	61	22	43	34	32	28	48	39	24	29	28	22	110	80	72	147	100	48
Philippine Rep.	1,133	894	953	608	711	1,033	1,723	2,078	1,755	1,758	....	....	....	1,038	2,473	2,625	3,098	2,549
Poland & Danzig	....	....	....	....	....	....	....	....	....	....	....	....	....	291	1,395	2,248	....	....
Portugal	3	2	4	8	8	6	8	8	19	4	10	2	4	99	425	329	459	56
Portuguese Africa‡	29	14	12	18	18	18	18	18	19	31	35	82	138	83	81	148	217	202
Saudi Arabia	....	....	....	....	....	....	....	....	....	....	....	....	....	3	54	67	88	73
Spain	....	3	....	....	....	2	111	18	....	31	....	....	....	1	182	....	1	....
Spanish Africa	....	....	....	....	....	....	....	....	....	....	....	....	....	53	129	....	....	1
Surinam (Dutch Guiana)	35	49	41	45	45	47	69	72	83	87	51	87	58	91	28	33	63	19
Sweden	12	6	8	4	4	4	8	8	....	....	....	....	....	....	1	218	43	....
Switzerland	....	....	....	....	....	....	....	....	....	74	....	....	....	10	315	1,141	288	2
Syria	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	142	137	....
Tangier	....	....	....	....	....	....	....	....	....	....	....	....	....	201	153	51	97	27
Trieste	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	198	67
Trinidad & Tobago	8	6	6	6	10	8	29	10	6	2	4	....	14	2	7	11	5	3
U. K.****	488	127	128	104	84	188	296	131	88	....	8	872	2,422	3,398	2,909	3,978	3	1,442
U.S.S.R.	....	....	....	....	....	....	....	....	....	....	31	1,478	3,220	2,031	2,011	....	....	....
Venezuela	409	367	363	375	414	498	622	782	619	778	673	663	1,134	1,074	1,076	1,341	1,467	1,074
Yugoslavia	....	....	....	....	....	....	....	....	....	....	....	....	....	974	892	....	77	38
Totals	11,358	7,767	8,159	8,476	7,263	8,751	10,245	13,194	11,317	11,484	8,699	13,187	18,317	24,582	49,661	74,187	74,584	32,213
Lend Lease	....	....	....	....	....	....	....	....	....	209	1,457	6,123	4,068	3,470	82			
UNRRA	....	....	....	....	....	....	....	....	....	....	....	....	....	2,035	8,388			

Totals include UNRRA and Lend Lease exports. †British South Africa (Union of South Africa and other South Africa). *British West Africa (Gold Coast, Nigeria and other British West Africa). **Other British West Indies (all except Barbados, Bermuda, Trinidad and Tobago and Jamaica). ††Dutch East Indies (Java and Madura). †††Dutch West Indies (Curacao and Aruba). ***French Africa (Algeria, Cameroons, Madagascar, Tunisia and other French Africa). ‡Portuguese Africa (Mozambique, Angola and Cape Verde Islands). ****United Kingdom (England, Wales, Channel Islands, Wight and Man, etc., Scotland and North England).

U.S. Exports of Wheat to Foreign Countries for the Years 1932-1949

Note: Included in 1948 and 1949 only are exports under the Department of the Army Civilian Supply Program. Not included are: shipments to the U.S. Armed Forces and U.S. government agencies and shipments between continental U.S. and U.S. territories and possessions. In bushels (000's omitted). Source: Bureau of the Census, U.S. Department of Commerce.

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Albania	....	....	....	....	....	....	....	....	....	....	....	....	....	715	259	....	....	....
Algeria	....	....	....	....	....	....	....	....	....	....	....	....	....	26,003	5,431	3,740	4,907	....
Australia	....	....	....	....	....	....	....	....	....	....	....	....	....	474	....	....	....	....
Austria	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6,005	15,900	14,966
Azores & Madeira Islands	....	....	....	....	....	....	24	....	....	202	....	....	....	....	119	294	337	487
Belgian Congo	....	....	....	....	....	....	....	....	12	....	....	....	....	....	....	9	7	....
Belgium	1,248	898	187	77	26	6,172	12,464	12,865	1,499	....	....	....	....	14,780	7,437	11,162	6,787	15,012
Bolivia	15	17	8	....	....	294	....	....	....	....	....	....	....	....	218	317	905	249
Brazil	17,024	1,391	....	....	....	326	....	....	....	....	....	....	....	148	1,277	....	....	....
British S. Africa	....	....	....	....	....	....	....	48	....	....	....	....	....	....	924	149	3,024	....
Canada	1,161	22	5	14	64	5,600	5,966	3,282	715	3,626	5	1,366	47	176	544	411	861	6,219
Chili	....	....	....	....	....	33	....	....	....	....	....	....	....	....	....	....	149	....
China	2,595	3,570	7,256	....	....	....	619	5,334	1,535	1,624	....	....	....	3,627	9,426	1,142	3,012	2,014
Colombia	29	3	2	....	....	67	382	384	51	51	76	61	85	142	76	185	267	181
Costa Rica	....	....	....	....	....	1	....	....	....	....	....	3	65	58	....	84	44	47
Cuba	31	26	19	4	9	14	26	72	24	12	66	22	3	71	76	63	71	58
Czechoslovakia	....	....	....	....	....	....	....	....	....	....	....	....	....	2,318	3,648	619	3	....
Denmark	16	....	19	....	....	144	2,016	....	....	....	....	....	....	....	....	664	....	....
Dominican Rep.	1	....	....	....	....	10	32	24	22	12	1	....	6	31	26	49	44	....
Ecuador	....	....	....	....	....	18	....	....	....	....	....	....	1	....	4	225	150	11
Egypt	....	....	....	....	....	....	....	....	....	....	1,014	247	....	1,709	150	471	3,544	2,946
Eire	236	599	3,282	....	899	3,396	11,159	3,643	1,199	....	....	....	....	....	302	2,484	1,209	1,819
El Salvador	....	17	198	79	107	182	219	249	63	52	15	23	41	28	....	57	62	49
Finland	99	....	....	....	....	19	29	....	....	....	....	....	....	....	1,584	2,748	....	....
France	4,645	154	84	....	87	589	867	265	49	....	....	....	....	27,785	28,474	18,462	25,151	7,266
French Africa	19	....	....	....	....	....	....	....	....	....	....	....	....	15,413	82	90	....	....
French Morocco	....	....	....	....	....	....	....	....	....	....	....	....	....	3,461	3,914	518	117	....
Germany	1,743	....	19	11	....	609	2,520	278	....	....	....	....	....	....	18,299	9,723	112,206	101,473
Greece	8,528	274	....	....	....	633	3,153	79	....	....	....	....	....	16,934	8,242	16,733	14,027	13,599
Guatemala	56	3	7	1	....	....	1	....	....	....	8	....	....	....	....	....	....	....
Honduras	116	109	38	36	33	45	187	194	108	45	42	7	39	107	78	141	147	174
Hong Kong	13	14	6	3	....	3	12	19	2	....	....	....	....	....	....	....	....	....
Hungary	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	272	3	....
India	....	....	....	....	....	....	....	....	....	....	....	....	....	299	15,093	11,497	13,534	11,636
Iran	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	743
Italy	978	136	119	....	204	459	1,394	79	122	....	....	....	....	14,596	28,381	37,784	34,119	32,485
Japan	212	684	4,001	....	222	63	....	....	....	1,032	....	....	....	....	....	....	26,224	28,566
Korea	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4,159	872
Malta, Gozo, Cyprus	....	....	....	....	....	58	77	....	....	....	....	....	....	....	....	....	....	....
Mexico	19	41	8	4	21	996	2,694	1,974	94	4,886	4,446	8,622	8,814	8,764	8,549	15,806	9,246	8,021
Netherlands	4,268	89	37	3	336	7,187	15,590	7,853	914	....	....	....	....	4,806	11,992	13,188	19,187	13,713
Nicaragua	....	....	....	....	17	3	....	....	....	....	....	....	....	....	....	....	....	....
Norway	....	....	....	....	....	149	871	276	899	....	....	....	....	....	3,221	1,939	4,604	3,064
Pakistan	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	900	....
Palestine	....	....	....	....	....	22	65	93	....	....	....	....	....	922	....	....	636	641
Panama (including Canal Zone)	....	....	....	....	252	1	1	....	....	....	....	....	....	....	....	....	....	2
Peru	2	75	198	....	....	267	55	....	....	....	....	....	....	....	2,050	1,060	2,072	4,220
Philippine Rep.	....	....	....	....	....	....	....	....	....	....	....	....	....	167	....	....	....	2
Poland & Danzig	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5,962	2,134	....	....
Portugal	....	....	....	....	....	....	1,918	....	58	....	....	....	....	318	3,430	4,481	1,478	3,202
Portuguese Africa	....	....	....	....	....	....	....	....	....	....	....	....	....	579	....	....	....	....
Saudi Arabia	....	....	....	....	....	....	....	....	....	....	....	....	....	112	319	148	416	184
Spain	327	....	....	....	....	351	178	203	....	....	....	....	....	978	2,116	....	....	2,666
Sweden	49	....	....	....	....	....	51	....	....	....	....	....	....	....	247	1,224	117	....
Switzerland	....	....	....	....	....	111	131	54	548	596	....	....	....	....	1,449	4,874	4,899	4,718
Syria	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	189	....	....
Trieste	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	247	1,604
Tunisia	....	....	....	....	....	....	....	....	....	....	....	....	....	1,696	....	....	....	....
Turkey	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	247	....
United Kingdom	3,460	47	1,289	....	197	4,562	24,993	22,874	3,064	1,486	41	25	....	1,445	16,898	11,961	2,847	7,482
Uruguay	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	238	....	....
U.S.S.R.	....	....	....	....	18	1	....	3,496	3,821	202	784	179	651	....	....	....	....	....
Venezuela	....	....	....	....	....	....	....	3	....	1	59	....	....	....	....	....	....	4
Yugoslavia	....	....	....	....	....	....	....	....	....	....	....	....	....	16,780	5,073	....	....	....
Totals*	34,879	7,863	15,979	222	1,878	34,646	96,997	63,714	14,779	13,199	6,615	11,941	28,029	128,764	187,255	189,094	337,543	310,191
Lend Lease	....	....	....	....	....	....	....	....	....	....	1,974	499	867	64,111	7,462	....	....	....
UNRRA	....	....	....	....	....	....	....	....	....	....	....	....	....	26,722	54,546	....	....	....

Totals include UNRRA and Lend Lease exports. *Totals exceed sum of the figures for individual countries because a number of minor importing countries are not listed. British South Africa (Union of South Africa and other South Africa); Dutch E. Indies (including Java and Madura); Dutch West Indies (Curacao and Aruba); French Africa (Algeria, Tunisia, Cameroun, Madagascar and other French Africa); Portuguese Africa (including Mozambique, Angola and Cape Verde Islands); United Kingdom (England, Wales, Channel Islands, Wight and Man, etc., Scotland and North England).

Canadian Flour and Grain Crop Year Exports

Note: By crop years, ending July 31, 000's omitted. Source: Dominion Bureau of Statistics.

	Wheat flour bbl.	Wheat bu.	Oats bu.	Barley bu.	Rye bu.	Flaxseed bu.
1948-49*	10,794	178,813	27,969	22,812	16,114	4,191
1947-48	11,904	138,397	7,425	2,494	16,276	1,992
1946-47	17,660	163,072	21,776	6,963	4,269	61
1945-46	12,786	273,996	48,535	5,476	2,839	279
1944-45	13,923	287,342	84,015	30,000	4,500	3,900
1943-44	13,484	283,186	68,868	36,192	8,109	10,050
1942-43	12,675	168,112	59,022	23,761	2,804	4,000
1941-42	10,206	179,902	2,068	2,063	2,792	865
1940-41	10,289	164,906	8,759	2,721	1,967	76
1939-40	8,781	162,158	16,247	12,148	6,672	59
1938-39	6,094	146,240	6,692	16,699	1,726	16
1937-38	3,609	78,713	4,776	14,744	649	18
1936-37	4,525	174,958	5,997	47,655	2,613	170
1935-36	4,974	232,919	11,961	7,678	3,458	13
1934-35	4,759	144,375	14,605	15,917	1,187	13
1933-34	5,455	170,334	6,035	1,711	2,569	107
1932-33	5,371	240,136	11,076	3,391	2,668	794
1931-32	5,363	182,802	13,611	12,539	9,047	251
1930-31	6,792	228,536	7,022	18,258	2,890	1,999
1929-30	9,778	155,760	2,000	7,601	240	418
1928-29	11,309	354,425	13,836	49,149	5,721	1,926

*Preliminary.

U.S. Semolina Exports

Note: By crop years, in pounds, 000's omitted. Source: USDA.

	1946-47	1947-48	1948-49
Canada	....	1	....
Newfoundland and Labrador	1	....	....
Mexico	1	....	669
Dom. Republic	250	348	480
Colombia	....	288	1,091
Venezuela	2	18	187
Brazil	226	....	978
Other L. A. Republics	....	....	185
Bahamas	....	....	60
Palestine	....	....	110
Norway	1,514	....	....
Denmark	194	....	....
France	....	1,611	....
Portugal	323	....	....
Italy	9,513	19,151	....
Greece	....	8	....
Tangier	22	....	115
French W. Africa	11,692	1,129	113
Belgian Congo	....	....	65
Total	21,491	24,723	3,454

U.S. Exports of Wheat Flour to Countries of Destination for 1941-49

Note: In sacks, 000's omitted. Included are: Flour made entirely from U.S. wheat; other wheat flour (including flour made from wheat imported in bond), and exports under the Army Civilian Supply Program for 1948 and 1949. Not included are semolina, shipments to the U.S. Armed Forces and U.S. government agencies and shipments between continental U.S. and the U.S. territories and possessions. Source: Bureau of the Census, U.S. Department of Commerce.

	1941		1942		1943		1944		1945		1946		1947		1948		1949	
	U.S.	Other	U.S.	Other	U.S.	Other	U.S.	Other	U.S.	Other	U.S.	Other	U.S.	Other	U.S.	Other	U.S.	Other
Albania									153		41				1			
Algeria									2				147					
Austria													1,755		1,889		2,419	
Azores & Madeira		13		20	2	22	3	34		26		21	22				17	22
Barbados	3	3	14		29		23	7	7		8	33	31		37		41	
Belgian Congo	13	40	18	33	8	27	24	64	23	36	18	29	72	33	124	1	75	52
Belgium									258		2,197	107	3,411		231		2	
Bermuda		13	2	25		13			1									
Bolivia	8	8	4	9		3	2	8	444	7	259	2	495	48	894	15	514	4
Brazil	193	150	9	159	13	171	22	452	1,309	701	3,768	940	4,271	81	5,279	29	1,249	27
British Guiana	4																	
Br. Honduras	74	2	83	2	65	19	34	17	15	48	57	5	51		47		28	1
Br. W. Africa*	89	114	74	112	28	118	35	142	82	122	31	91	197	52	158	18	314	278
Oth. B. W. Indies†	1	2	10	4			1		1		1				5			
Br. So. Africa‡	2	67		51						2			272		19		3	
Canada	27	48	3	8	2	42	13	399	1	113	17	25	38	4	30		21	
Canary Islands										23		39						
Ceylon															3,143			
Chili									1				59		275	5	41	
China	1,935	76							235	77	1,994		639		1,744		181	
Colombia	5	12	20	6	94	3	37	33	143	139	41	1	373	12	283	5	43	12
Costa Rica	40	153	88	78	198	112	313	179	201	182	71	87	181	18	280		149	56
Cuba	1,358	812	1,859	986	1,881	1,261	2,111	192	4,508	177	3,182	298	392	11	2,391	14	1,579	1,017
Czechoslovakia									237		987	4	314			5		
Denmark													144		2			
Dom. Republic	14	33	14	58	19	117	7	274	74	217	35	176	205	14	296	21	47	100
Dutch E. Indies**	2	2							421		417	126						
Dutch W. Indies‖	43	78	15	86	42	120	28	84	41	95	59	81	1,383	110	3,421	9	1,437	24
Ecuador	245	16	412	39	111	4	441	73	806	44	284	38	650	9	314	5	314	49
Egypt	304	46		13					222		476	19	590				13	
Eire											178		2,059		337		38	
El Salvador	41	16	87	18	89	25	85	35	188	53	68	2	119	9	118		153	7
Finland	41										188		2,115		1			
France											3,044	249	2,141	159	3,060		294	
French Africa‡	37	28	8	18			3	28	142	84	248	171	495	80	427		195	
French Guiana	5	4		14	14	16	13	21	26	8	15	13	19				28	
Fr. W. Indies	319	164	84	166	132	58	273	119	359	206	394	89	337	8	351		544	
French Indo China											35							
Germany									9		3,342		4,105	111	14,073		3,481	
Gibraltar									1									
Greece									141	14	1,181	16	2,680	20	4,156		3,750	
Guatemala	151	11	158	51	143	37	14	43	284	48	125	41	181	31	279		278	31
Haiti	85	88	59	105	52	119	63	250	728	204	56	162	204	43	342	23	168	247
Honduras	19	14	58	8	21	13	29	22	49	36	22	24	64	8	59	8	58	99
Hong Kong	417	43							5	1	415	6	75		15	5	198	3
Iceland	1	53		49	8	47	1	22		8			27	21	41		115	1
India													1,758	175	3,889		1	
Iraq									23									
Italy								1	1,002	45	5,848	12	4,454	38	8,955		4,357	
Jamaica	1	2	18	2	62		45		112	82	187	23	385		415		485	2
Japan	27														5,923		1,599	
Liberia	2	2	3		4	2	3	3	8	3	3	2	7		47		4	4
Malta, Gozo & Cyprus													2	1				
Mexico	16	1	18		54	1	1,818	184	389	16	1,273	3	598		184		37	
Miquelon & St. Pierre												1			1	4		
Morocco	12	23				8		13			4	2	192		62			
Netherlands									18		1,488		3,947	3	3,699		1,184	
Newfoundland & Labrador	32	132	16	83	7	11	19	42	14	5	30	4	74		65		5	
Nicaragua	116	4	146	8	143	14	116	29	115	26	91	18	144	8	124	1	84	11
Norway									37	168	720	182	919		679		842	
Palestine		32									1	5			191		164	
Panama	289	159	325	123	119	145	74	173	178	126	159	131	254	29	293	2	188	81
Peru	16	39	4	54		55		153	15	57	18	56	133	14	110		48	
Philippine Rep.	1,758	18							1,078	9	2,546	27	2,425	4	3,188		2,547	2
Poland & Danzig									291		1,299	5	2,249					
Portugal		4	3	8		2	1	4	47	33	278	237	908	72	919		81	5
Port. Africa***		11		12		63		138		111	18	42	343	2	195		298	
Saudi Arabia										3	51	2	48	7	92	8	89	7
Spain	11										147	15	5					
Spanish Africa										53	51	66			2			
Surinam	27	16	33	31	49	28	13	41	19	67	7	23	38	4	67		19	22
Sweden									13		1		218		52			
Switzerland	74								19		253		1,181		168		1	
Tangier									99	205	272	77	38	2	62	1	18	9
Trinidad, Tobago		1	1	1			13		2		8	1	9	1	3		1	1
U. K.****				8	479	1	2,411	29	2,184	122	2,741	198	1,085	10	3		1,190	4
U.S.S.R.					1,479		1,779		2,981		2,502							
Venezuela	47	194	194	177	198	192	113	1,017	189	286	854	189	1,297	17	1,431	30	318	428
Yugoslavia									974		482				77		19	37
Hungary															21		3	
Trieste															185		84	1
Syria															113		103	
Korea															337		455	
Turkey																	158	
Totals	5,545	2,439	3,644	2,915	8,784	3,321	12,088	4,945	29,953	4,548	45,022	4,618	70,912	1,031	74,799	217	38,194	3,858
Lend Lease	269		1,249	8	3,089	44	4,149	38	5,219	219	32							
UNRRA									2,474	77	8,370	16						

Totals include UNRRA and Lend Lease exports but do not include shipments to U.S. armed forces abroad.

*British West Africa includes Gold Coast, Nigeria and others. †Other British West Indies except Barbados, Bermuda, Trinidad and Tobago. ‡British South Africa (Union of South Africa and other South Africa). **Dutch East Indies (includes Java and Madura). ‖Dutch West Indies (includes Curacao and Aruba). ‡French Africa (includes Algeria, Tunisia, Madagascar and other French Africa). *** Portuguese Africa (includes Mozambique). ****England, Wales, Channel Islands, Wight and Man etc., Scotland and Northern Ireland.

U.S. Exports of Wheat Flour by Months for 1949

Note: By countries of destination, in sacks, 000's omitted. Included are: flour made wholly of U.S. wheat, other wheat flour (not including semolina), and exports under the Department of the Army Civilian Supply Program. Not included are: shipments to the U.S. Armed Forces and U.S. government agencies and shipments between continental U.S. and the U.S. territories and possessions. Source: Bureau of the Census, U. S. Department of Commerce.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Ireland	9	...	3	4	32	18	23	...	2	1	5	13	119
Canada	...	...	...	1	...	...	10	6	2	...	...	...	21
Newfoundland	2	...	1	...	...	...	...	1	...	...	...	...	5
Mexico	3	3	1	2	3	1	7	1	1	1	1	1	27
Guatemala	19	41	31	23	19	40	27	37	14	7	20	12	327
Br. Honduras	5	8	3	4	3	4	1	3	10	4	8	8	64
Salvador	29	4	16	14	7	11	8	8	11	13	11	29	164
Honduras	6	3	4	11	8	6	5	6	6	8	9	10	86
Nicaragua	16	8	5	8	10	10	11	11	8	7	6	9	107
Costa Rica	22	22	20	9	20	21	25	16	17	21	20	17	237
Panama	15	16	12	21	15	25	15	19	12	15	14	19	178
Pan. C. Zone	4	7	7	8	4	4	8	5	12	1	6	1	68
Cuba	245	213	230	219	236	267	192	163	134	118	204	218	2,427
Bahamas	...	...	...	2	...	...	...	...	...	...	...	...	2
Jamaica	68	66	55	78	57	53	79	31	42	51	6	60	650
Haiti	43	26	28	31	24	61	19	13	27	40	42	61	435
Dominican Rep.	4	7	9	12	14	14	11	9	8	13	11	21	147
Leeward Islands	1	...	...	...	...	...	...	...	...	...	...	...	1
Trinidad	1	...	...	...	...	1	...	...	...	...	...	1	3
Barbados	2	4	5	8	3	5	...	6	3	4	2	...	41
Neth. Antilles	19	10	4	7	15	13	17	7	3	8	15	12	130
Fr. W. Indies	2	110	71	60	...	114	35	60	49	24	29	21	644
Colombia	24	6	7	3	5	9	3	7	5	6	5	7	72
Venezuela	95	46	51	118	114	121	141	84	74	66	83	80	1,074
Surinam	...	3	1	3	5	5	5	4	5	4	5	2	48
Fr. Guiana	...	3	...	2	3	4	...	3	4	3	...	...	29
Ecuador	14	24	...	28	48	33	37	25	25	22	44	34	391
Peru	16	...	11	12	...	4	4	1	...	1	...	...	49
Bolivia	188	12	21	19	3	13	16	2	8	11	10	12	336
Chile	18	10	6	19	4	...	...	10	5	11	3	...	81
Brazil	1,086	107	11	2	...	6	6	85	...	7	...	...	1,310
Norway	45	45	61	77	117	116	66	10	77	20	72	142	921
U.K.	...	13	288	33	130	481	474	...	...	...	...	...	1,461
Eire	...	...	...	...	...	36	...	...	...	...	...	...	36
Netherlands	62	131	166	166	116	543	317	...	...	...	40	105	1,155
Belgium	...	...	...	...	...	...	...	...	1	...	1	...	2
France	...	...	...	...	...	12	192	...	...	...	...	...	204
Germany	517	718	355	203	30	244	153	2	2	240	16	3	2,462
Yugoslavia	2	3	2	7	2	2	4	4	...	8	...	...	29
Austria	313	172	22	85	53	...	192	231	84	50	171	48	1,419
Switzerland	...	...	...	...	...	...	...	2	...	...	...	...	2
Portugal	90	...	1	1	...	1	...	...	...	5	...	...	94
Italy	893	1,960	476	334	320	334	237	...	...	2	...	...	4,187
Greece	749	92	331	663	16	...	104	39	139	264	70	58	2,720
Trieste	...	...	...	...	...	...	63	...	...	4	...	...	67
Turkey	...	...	...	...	...	...	...	...	...	...	...	106	106
Egypt	...	...	...	...	12	...	...	...	...	...	...	...	12
Saudi Arabia	9	...	1	12	2	...	2	1	14	1	13	16	71
Palestine	...	...	2	...	...	...	...	...	164	...	...	...	166
India	...	...	1	...	...	...	...	...	...	...	...	1	3
Siam	1	...	1	2	...	...	...	...	...	...	...	...	5
Iran	2	11	...	...	...	...	...	...	...	...	...	...	13
Bahrein	1	...	1	1	1	...	...	...	...	...	...	...	4
Neth. Indies	29	114	203	61	206	217	127	124	99	43	11	74	1,272
Philip. Republic	190	66	123	119	330	261	329	168	136	183	127	84	2,249
Port. Asia	...	...	...	...	...	...	...	...	...	7	18	17	42
Fr. Indo China	...	...	22	...	...	...	...	...	...	...	...	...	22
China	148	...	...	1	...	...	...	...	...	...	...	...	161
Korea	...	114	83	...	234	...	...	...	...	...	...	...	431
Hong Kong	4	10	18	22	9	9	128	30	32	61	60	16	611
Japan	388	827	180	21	27	3	9	1	...	...	198	114	1,889
Tangier	1	4	...	5	...	7	2	...	...	6	...	1	27
Cameroon	17	...	...	...	...	...	...	5	4	...	...	...	23
Taiwan	...	...	...	...	...	...	...	...	...	...	...	12	12
Fr. W. Africa	18	...	1	...	...	...	46	8	68	4	...	...	149
Fr. Eq. Africa	1	...	...	...	...	...	...	...	21	...	...	...	26
Gold Coast	49	23	47	25	98	12	24	8	35	21	31	41	319
Nigeria	21	4	79	11	9	15	18	...	32	16	16	34	312
Madeira	9	1	1	10	6	...	...	4	4	1	...	1	39
Angola	...	1	4	...	22	...	1	14	1	15	10	...	74
Other B. W. Afr.	6	...	5	2	1	2	9	5	5	3	3	1	51
Fr. P. Island	...	...	...	...	...	...	4	...	...	...	...	...	4
Oth. Port. Gn.	...	...	1	1	10	3	...	...	1	...	...	1	17
Liberia	1	...	1	1	1	1	1	...	1	2	...	1	9
Belgian Congo	10	14	12	12	1	6	6	5	7	10	9	6	107
Mozambique	...	21	17	...	21	26	3	...	...	...	...	...	111
Un. So. Africa	...	...	...	...	...	...	...	...	...	...	3	...	3
Fr. Somaliland	...	...	...	...	2	...	...	...	...	...	...	...	2
So. Rhodesia	...	...	...	...	...	...	...	...	...	...	44	...	44
U.S. wheat flour	4,809	4,896	2,611	2,533	2,358	2,316	2,411	1,110	1,370	1,383	1,115	1,414	29,196
Other wheat flour	33	13	56	142	349	412	192	158	95	288	424	492	2,656
Totals	4,847	4,911	2,673	2,676	2,646	2,727	1,606	2,360	1,400	1,472	1,239	1,906	31,214

U.S. Wheat and Flour Exports

Note: Wheat and wheat flour (semolina not included), by crop years, 000's omitted. Source: USDA.

	Wheat, bu.		Flour, sacks	
	'47-'48	'48-'49	'47-'48	'48-'49
Canada	787	441	34	13
Newfoundland & Labrador	...	...	84	20
L. Am. Rep.—				
Mexico	6,352	4,794	418	24
Guatemala	...	...	874	894
El Salvador	22	47	132	167
Honduras	416	171	44	67
Costa Rica	72	80	253	286
Nicaragua	...	...	134	152
Pan., Rep. of	...	...	217	264
Pan. Canal Zone	...	...	63	77
Cuba	58	76	1,632	2,713
Haiti	...	...	288	479
Dom. Rep.	64	16	263	193
Colombia	429	473	399	237
Venezuela	...	...	1,269	1,353
Ecuador	292	62	184	434
Peru	1,927	2,681	237	113
Bolivia	861	790	872	885
Chile	...	...	89	66
Brazil	...	...	2,620	7,268
Oth. L. A. Rep.	1	101	8	7
Total L. Am. Republics	11,846	14,289	9,443	14,949
Br. Honduras	...	...	57	48
Br. W. Indies	...	...	319	584
Neth. Antilles	...	...	159	190
Fr. W. Indies	...	...	364	718
Surinam	...	...	...	18
Europe—				
Ireland	4	3	29	109
Sweden	1,079	...	318	13
Norway	2,439	4,391	899	1,087
Denmark	494	...	115	...
U. K.	2,724	7,482	305	836
Eire	1,110	3,222	800	218
Netherlands	18,759	17,373	3,469	2,904
Belgium & Lux.	6,705	15,719	1,357	...
France	23,960	15,410	3,124	608
Germany	92,811	113,618	26,437	3,248
Austria	13,760	14,789	3,149	1,791
Czechoslovakia	...	5	42	...
Hungary	2	...	1	...
Switzerland	3,421	9,094	619	10
Finland	1,382	...	358	...
Poland & Danzig	696	...	1,213	...
Spain	...	...	1	...
Azores	...	90	...	...
Portugal	4,884	10,184	922	448
Italy	34,152	58,314	8,315	7,666
Trieste	...	1,402	400	100
Greece	14,271	15,943	3,004	3,681
Romania	5	...	...	...
Yugoslavia	...	...	3	27
Albania	...	...	1	...
Total Europe	233,139	278,863	52,888	24,678
Turkey	347	...	...	...
Syria	190	...	143	164
Lebanon	1	...	27	171
Saudi Arabia	118	449	...	...
Palestine	...	...	181	32
India	10,490	21,087	2,061	827
Pakistan	323	074	...	...
Ceylon	...	...	778	...
Siam	...	...	...	5
Br. Malaya	...	...	254	...
Indonesia	...	...	1,341	1,611
Rep. of Phil.	...	...	2,062	3,224
China	1,611	872	1,834	1,413
Korea	2,314	4,120	794	824
Hong Kong	...	...	10	116
Japan	32,287	44,089	3,837	6,148
Fr. Morocco	...	217	62	...
Algeria	4,840	252	...	...
Egypt	474	4,080	131	12
Fr. W. Africa	...	...	322	233
Nigeria	...	...	19	59
Madeira Isds.	181	101	...	58
Gold Coast	...	...	321	383
Other Br. West Africa	...	...	1	7
Angola	...	...	36	79
Port. Guinea	...	...	72	25
Liberia	...	...	84	22
Belgian Congo	...	...	96	143
Mozambique	...	...	142	131
U. of S. Africa	540	3,024	288	1
Others	11	792	476	782
Total	304,448	373,197	78,193	57,573

Canada Flour to Newfoundland

Note: By crop years ending July 31, in barrels. Source: Dominion Bureau of Statistics.

1948-49	*232,776	1942-43	264,583
1947-48	386,678	1941-42	492,992
1946-47	361,256	1940-41	319,384
1945-46	473,218	1939-40	323,829
1944-45	363,193	1938-39	294,391
1943-44	398,921	1937-38	237,584

*Exports August to March 31 only, not reported separately after confederation.

Canadian Mill Wages

Note: In 1950, in cents. Source: The Northwestern Miller.

Millwrights	$0.85@1.20
Electricians	.85@1.25
Rollers and grinders	.80@1.15
Packers	.75@1.06
Elevator help	.75@1.04
General help	.75@ .95
Watchmen	.75@1.00

Canadian Flour to Philippines

Note: In barrels. Source: Dominion Bureau of Statistics.

1948-49	443,562	1943-44	......
1947-48	135,365	1942-43	......
1946-47	656,228	1941-42	48,849
1945-46	811,039	1940-41	145,892
1944-45	41,869	1939-40	141,777

U.S. Exports of Wheat by Months for 1949

Note: By countries of destination, in bushels, 000's omitted. Included are: exports under the Department of the Army Civilian Supply Program. Not included are: shipments to the U.S. Armed Forces and U.S. government agencies and shipments between continental U.S. and the U.S. territories and possessions. Source. Bureau of the Census, U.S. Department of Commerce.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Canada			2	2				4,893			174	
Mexico	103	1,078	115	899	411	279	443	799	341	1,128	1,371	594
Salvador	24		5							2	30	10
Venezuela								4				
Honduras	14	5	18	34	19	6	21	7	14	18	17	11
Costa Rica	21	17			1		13					
Cuba	4	7	4	4	2	3	4	5	4	4	4	7
Peru	400	237		331	313	466	331	312	341		344	1,015
Norway	315	291	444	1,225								177
Eire		318		723	238	122		147		187		
Netherlands	418	1,737	1,435	1,344		1,189	748		1,644	889	1,190	2,987
Belgium	2,449	715	139	813	1,449	2,475	1,784	1,591	774			
Germany	8,574	6,746	5,404	4,594	11,268	8,403	13,415	10,895	12,606	11,168	9,339	8,496
Austria	1,439	839	1,579		3,452	791	1,210	494	419	1,933	1,139	2,751
Trieste	512				702							
Palestine	147		214									
Portugal	841	498	1,219	1,418	335	882	281	334	280	833	435	447
Italy	1,488	7,815	3,810	5,411	3,757	316		793				871
Neth. Indies				4								
Greece	891	1,383	1,139	746	2,318	1,147	13	1,341	1,184		343	1,243
India	1,999	1,014	1,729	1,481	1,299	198	833					
Spain							41	1,415				
Japan	4,508	4,594	4,113	3,441	7,251	7,083	8,059	7,188	8,519	3,941	5,515	3,798
Korea					316	126						
Colombia	37	49	33	19	19	11	41					
Ecuador						13						
France					1,810	5,126	214					
Switzerland	2,144	1,944	473		318	338						
Malaya					149				34		93	
Saudi Arabia	33									47		13
Azores					11							89
Iran								279	343			
Iceland												1
Egypt	1,012	338	889									
Panama	3											
Bolivia	243	81										
Bahrein	1			1								
Turkey								1,471	433	433	910	
U. K.		1,016	1,189	1,034	1,511	793						
Totals	18,488	26,775	21,388	23,933	40,817	36,313	24,798	24,250	30,082	22,483	20,482	23,893

U.S. Corn Exports to Various Countries

Note: By years, in bushels of 56 lb., 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	1939	1940	1947	1948	1949	1944	1943	1942	1941	1940	1939
Azores & Madeira Islands			89								192
Austria	3,288	31	3,811	744						31	195
Belgium	3,832	179	3,878	374	1,867					1	17
Bermuda							1	9	2	1	
Brazil										1	
Br. East Africa											194
Canary Islands	774										
China		22	5								
Colombia			29								
Canada	17,157	10,431	3,938	1,378	2,140	4,374	3,993	4,819	4,791	14,774	8,379
Costa Rica					113						149
Cuba	3	4	46	16	118		1	1	1	1	1
Czechoslovakia				219							
Denmark	3,497	317								3,614	799
Egypt	500	184	3,819								
Eire	8,172	377									
Finland			752								
France	7,138	2,134	15,573	331	734						152
Germany	17,937	6,926	10,794	2,509							
Greece	340	340	2,535	467	342						
Guatemala	119				281		2				
Iceland			3	1	6	2				11	1
India	1,784		335	4,374	7						
Hungary	591										
Ireland										1,777	2,164
Italy	3,242	2,17,488	1,651				1				
Jamaica			159	40			19			18	
Japan	12,924	646									
Korea		82									
Mexico	11	13	12	274	1,837	1,074	1,112	6	3		2,191
Mozambique	255										
Netherlands	1,856	1,143	5,274	2	804					1,081	4,773
Norway	1,256		159							423	91
Palestine	159										
Panama		1			3		1	17	5	4	214
Philippine Rep.	11	13	4	72	88						
Port. Asia				332							
Poland & Danzig			1,915	850							14
Portugal	183	1	1,819	333					159		
South Rhodesia	179		214								
Rumania			4,153								
Sweden											143
Switzerland	411	34	1,764	27	56	56		14	272		
Trieste	312										
U. K.	231	4	4,827	324	7,832	839	1,118	4,832	13,814	13,484	3,454
U.S.S.R.					12	11	4				
Venezuela	47	3	1,377			2				1	131
Yugoslavia				174	133						
Other countries	42	24	22	44	34	1	2	19	27	7	73
Totals	113,168	32,804	67,638	18,172	16,439	10,231	3,131	8,796	19,268	38,317	22,317
Lend Lease				83	8,284	462	1,124	284	10,342		
UNRRA				1,870	723						

Totals include UNRRA and Lend Lease exports but do not include shipments to U.S. armed forces abroad.

U.S. Macaroni Exports

Note: Macaroni and macaroni products, by calendar years, in pounds, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	1949	1948	1947	1946
Canada	7	4	1,186	49
Newfoundland & Labrador	2	47	183	
Mexico	403	724	911	936
Guatemala	77	43	49	47
Salvador	39	32	21	32
Nicaragua	37	19	38	22
Costa Rica	8	89	123	87
Panama Rep.	314	314	299	294
Panama C.Z.	742	742	754	532
Cuba	918	781	1,198	593
Haiti	127	113	89	193
Dom. Rep.	781	354	486	293
Curacao	43	119	67	45
Colombia	6	17	25	49
Venezuela	188	183	89	48
Brazil		2,798	2,348	14,435
U. K.	1	163	347	3
Eire	33	4	443	479
Netherlands		284	457	
Germany	41	4,781	19	
Austria	34	2,379	31	46
Belgium & Lux.	1,118	2,591		291
Switzerland	4,148	8,411	1,114	329
Portugal	494	423	9,445	26,249
Italy	43	174,849	19,123	802
Greece	9,037	18,087	11,894	12,687
Syria	33	4	378	3
Saudi Arabia	384	437	107	93
Phil. Rep.	843	194	3,118	135
Hong Kong	91	139	171	436
France	49		19	
Japan	77	72	44	
Tangier	24	118	23	3
Belg. Congo	112	193	149	89
Un. S. Africa	3	237	319	384
Lebanon	104	118		
Trieste		360		
Yugoslavia	4	81		
Others	683	183	11,216	2,989
Totals	21,209	221,731	74,434	72,194

U.S. Wheat, Flour Exports

Note: Exports of wheat and flour under the Department of the Army Civilian Supply Program. Source: Bureau of the Census, U. S. Department of Commerce.

1948	Wheat bu.	Wheat flour sacks
January	4,896,798	2,181,719
February	12,474,748	833,723
March	4,488,185	2,344,748
April	4,897,741	2,106,567
May	4,558,018	1,518,882
June	14,854,277	3,194,881
July	16,873,567	2,584,149
August	19,893,051	2,168,774
September	11,478,198	1,287,969
October	16,097,811	816,884
November	8,818,038	174,893
December	8,612,812	585,480
Totals	133,516,414	18,862,884
1947	241,804,853	16,187,778
1946		
Germany	102,797,548	13,894,160
Austria	1,000	
Japan	16,818,773	3,816,484
Korea	8,718,133	817,410
Totals	128,316,454	18,862,854
1947		
Germany	45,448,843	17,277,447
Austria	3,599,849	618,897
Italy	1,587,199	184,183
Japan	16,383,872	6,816,181
Korea	1,842,818	346,874
Totals	271,894,832	16,187,778

*Figures for 1948 are not available, but are included in total export tables shown on pages 28 and 29.

Canadian Millfeed Exports

Note: By crop years ending July 31. Source: Dominion Bureau of Statistics, in tons:

Crop years	Production	Exports
1946-47*	483,468	43,467
1947-48	488,898	30,002
1948-49	476,863	48,113
1945-46	443,844	31,170
1944-45	414,272	41,669
1943-44	787,843	78,018
1942-43	782,204	31,185
1941-42	846,304	83,800

*Preliminary

International Trade in Wheat and Flour

Note: By crop years, ending July 31, in bushels, 000,000's omitted. Source: Food Research Institute, Stanford University.

Year—Aug.-July	Net exports of net-exporting countries: Total	United States	Canada	Australia	Argentina	Lower Danube	French N. Africa	India	Others ex Danube	U.S.S.R.	Total	British Isles	Continent
1948-49*	890	304	232	118	83						624	220	404
1947-48*	948	491	191	109	97						873	202	671
1946-47*	749	419	210	49	63						167	192	195
1945-46*	476	299	143	41	79							161	
1944-45*	625	199	163	45	195							117	
1943-44*	532	(81)	113	81	94	31	8		3		231	141	90
1942-43*	379	31	111	54	48	5	2		4		217	162	55
1941-42*	435	28	139	43	83	39	16	6	5		241	183	66
1940-41*	493	31	221	76	96	19	35	6	19	8	336	246	90
1939-40*	429	45	192	96	179	87	17	5	19		448	344	205
1938-39	643	193	114	96	122	85	19	(1)	35	34	438	247	191
1937-38	556	217	96	126	72	64	15	19	26	43	494	298	196
1936-37	623	(17)	216	182	182	49	6	19	30	3	647	312	335
1935-36	618	(31)	248	102	79	35	26	1	35	29	559	326	118
1934-35	546	(4)	161	188	181	22	39	3	34	3	560	337	133

Figures in parentheses represent net imports not included in totals. *Approximations, except for U.S. (July-June year); Canada, Australia, Argentina and British Isles.

U.S. Oats Exports to Various Countries

Note: By years, in bushels of 32 lb., 000's omitted. Source: Bureau of the Census, U. S. Department of Commerce.

	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939
Belgium	1,446		160	237	2,479						
Br. W. Indies		1							2	3	4
Costa Rica	13	9	4	5	7						
Canada	345	351		1	7			6	16		2
Cuba	264	109	436	315	35	160	15	164	89	1	160
Dominican Rep.	11	15	12	18	11	14	1	2	4	4	4
Denmark		633									
Ecuador	12		8								
Colombia											
Finland			163	432					21	84	
Fr. Morocco				1,617							
Germany	1,496	1,278	417	4,694							
Czechoslovakia				1,141	56						
France	2,931	1,412		1,874	174						
Algeria		502		3,871							
Austria	349	352		586							
Brazil		32	81	7							
Yugoslavia	8			1,261	288						
Greece	1,187	1,384	423	1,847	261						
Honduras	2	8	13	59		11		11	31	8	24
Italy				1,784							
Mexico	224	16	18	134	118	133	14	14	14	31	33
Netherlands	1,193	169	347	1,339							
Newfoundland & Labrador		9	32								
Norway	356										
Panama, Rep. of	9	24	37	33	16	3	19	3	19	4	8
Philippine Rep.	5	1	1	1					24	24	24
Poland			12	168	4						
Rumania			169								
Tunisia				290							
Un. of S. Africa			179	3,787							
Portugal				1					119		
Sweden			114	375							
Switzerland	393		341	1,846					133		
U. K.			455								
U.S.S.R.					1		11	107			
Venezuela	42	79	83	33	1	2	10		1	4	21
Other countries	11	32	11	20	13	33	10	11	17	10	7
Totals	10,749	14,318	3,471	28,107	3,617	283	121	318	324	188	238
Lend Lease				171	1,989		1	197			
UNRRA				4,924	742						

Totals include UNRRA and Lend Lease exports but do not include shipments to U.S. armed forces abroad.

U.S. Rye Exports to Various Countries

Note: By years, in bushels of 56 lb., 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	1948	1949	1947	1946	1945	1944	1943	1942	1941	1940	1939
Austria	1,474	4		13							
Belgium					1,744						
Canada	1	2	1,245	1						2	1
Czechoslovakia					1,695						
Denmark										81	81
Finland										728	
France			588								
Germany	1,491	1,479		434							
Ireland		4						1	1	3	10	4
Japan	13	13									
Mexico						47	66		1	1	
Netherlands	340										
Norway				1,487							
Poland				33	135						
Sweden										335	
Switzerland				513							
U. K.				740					6	250	
Yugoslavia		8			1,324						
All others	*	*	*	1	9	*	11	1	2	4	
Totals	3,483	1,510	1,753	3,778	5,904	47	78	11	13	899	96

Totals include UNRRA and Lend Lease exports but do not include shipments to U.S. armed forces abroad. *Less than 500 bu.

U.S. Flour, Grain Imports

Note: 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

Year	Wheat flour, cwts	Wheat, bu. Milled in bond: Domestic consumption	Wheat, bu. Not milled in bond: For export: To Cuba	To all others
1948	79	1,332	1,443	4,971
1946	7	56		
1947	2	83	107	219
1946	4	138	210	4,004
1945	31	4,060	80	11,000
1944	69	110,438	669	6,017
1943	36	48,290	3,160	6,188
1942	61	861	3,321	3,943
1941	10	395	1,813	8,605
1940	117	179	3,487	8,187
1939	173	294	2,638	7,756
1938	143	48	839	5,842
1937	49	3,884	3,381	6,751
1936	950	34,178	4,985	8,216
1935	25	27,439	4,813	7,619
1934	2	7,230	4,448	7,380
1933	1	31	2,733	7,884
1932		3	2,593	7,431
1931		43	*	16,648
1930	4	11	*	14,963
1929	4	39	*	14,646
1928	12	129	*	18,649
1927	14	6	*	11,747

*Included in all others.

	Bbls. Rye flour	Rye	Corn	Barley	Oats	Flaxseed
1948	12,190	142	12,444	17,639	144	
1949	1,029	414	3,428	13,217	1,094	
1947	818	422	141	730	292	
1946	1,080	783	5,411	3,624	3,461	
1945	3,646	358	17,143	34,141	1,789	
1944	12,643	8,160	42,289	85,948	16,739	
1943	3,971	211	44,607	78,784	18,614	
1942	476	168	5,387	8,237	13,739	
1941	8,666	795	688	4,021	21,133	
1940	69	1,621	1,499	12,131	11,925	
1939	*	409	775	4,293	16,024	
1938		404	130	7		
1937	287	28,187	26,388	84		
1936	1	1,940	31,471	3,165	149	
1935		9,643	43,041	6,849	18,187	37,689
1934	1	7,422	2,969	6,189	6,589	16,179
1933	11	5,996	140	*	133	15,035
1932			344	*	59	7,018
1931		81	418	*	176	14,485
1930		7	1,256	*	183	22,922
1929			1,256	*	112	24,323
1928		3	384	*	459	17,679
1927			3,458	*	86	31,831

*Too small to be reported separately.

U.S. Trade in Oilcake, Meal

Note: By calendar years, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

LINSEED OILCAKE AND OILCAKE MEAL

	Exports tons	Imports lb.
1949	44	18,984
1948	28	18,348
1947	10	48
1946	1	497
1945	741	14,891
1944	1,171	11,279
1943	1,748	3,413
1942	9,847	367
1941	3,711	1,147
1940	44,038	1,358
1939	115,484	8,420
1938	104,739	13,346

CUTTONSEED OILCAKE AND OILCAKE MEAL

1949	179	123,174
1948	9	30,786
1947	13	22,843
1946	70	48,117
1945	11	151,313
1944	199	151,986
1943	1,501	128,871
1942	1,121	79,309
1941	544	91,458
1940	1,187	91,456
1939	8,849	9,996
1938	67,237	3,266

SOYBEAN OILCAKE AND OILCAKE MEAL

1949	41	9,613
1948	39	.....
1947	132	.....
1946	1,753	52
1945	8,183	.....
1944	13,098	.....
1943	14,968	.....
1942	17,373	.....
1941	22,904	8,360
1940	34,612	19,038
1939	40,457	16,230
1938		24,776

U.S. Wheat and Wheat Flour Imports, Exports

Note: In bushels, 000's omitted; Source: USDA

IMPORTS*

Year beginning July—	For domestic use*: Full-duty wheat	Wheat for feed‡	Flour†	Total wheat and flour	Wheat for milling in bond and export*	Total
1939	56	66	355	477	9,952	10,439
1940	105	2,337	191	2,632	7,221	11,024
1941	1,888	1,785	179	3,667	11,912	15,075
1942	856	150	199	1,956	7,877	9,833
1943	§128,012	105	157	128,559	18,912	147,31[illegible]
1944	§28,335	15,919	193	42,347	9,213	52,580
1945	1,134	767	97	2,000	11,081	13,581
1946	21	29	7	57	1,944	2,011
1947	3	117	8	130	18	148
1948	1,317	16	198	1,517	3,113	4,630

EXPORTS*

Year beginning July—	Non-Military Exports: Wheat as grain	Flour wholly from U.S. wheat	Total	Army Civilian Program: Wheat as grain	Flour wholly from U.S. wheat	Total	Total U.S. wheat and flour	Other flour**	Total wheat and flour
1939	22,436	21,232*	43,668	0	0	0	44,668	9,607	54,275
1940	19,810*	22,312*	33,622	0	0	0	33,512	8,856	49,287
1941	12,437*	††14,999	27,436	0	0	0	27,436	9,136	36,560
1942	8,225*	19,944*	34,283	0	0	0	34,283	6,900	33,163
1943	11,917*	28,311*	40,273	0	0	0	40,273	18,896	52,896
1944	19,916*	28,187*	87,297	44,368	40,133	84,501	141,798	9,298	151,196
1945	156,136*	75,676*	306,811	48,678	55,449	62,347	368,376	11,848	401,066
1946	‡‡164,414	††165,088	319,183	47,287	31,543	78,610	394,142	8,233	404,791
1947	§§291,389	***133,991	348,481	87,328	45,461	138,789	478,249	819	479,313
1948	252,143	101,821	354,064	142,754	24,737	167,511	503,574*	2,749	504,323

*Imports, exports from reports of Department of Commerce. Figures for Army Civilian Supply Program are from the National Military Establishments. †Includes flour expressed in wheat equivalent. Exports of wheat products other than flour, not shown in the table, expressed in thousand bushels wheat equivalent, beginning with 1941-42, were as follows: 343; 1,416; 2,077; 2,161; 4,729; 3,492; 8,655, and for 1948-49, 1,201. ‡Classified as "unfit for human consumption" or imported for special feeding programs. Includes some flour imported in bond for re-export, which for 1939-40 was 734,000 bu. and in 1940-41 was 170,000 bu. ‡Includes wheat and wheat products used for livestock and poultry feed, imported duty-free by the Commodity Credit Corp. **Usually all from imported wheat, although in some years small quantities of U.S. wheat were added. ††14,674,000* plus 433,000 unreported exports to British Services. ‡‡143,414* plus 11,334,000 unreported January-June, 1947, exports to Germany financed by the U.K. ††121,181,000* plus 10,193,000 unreported January-June, 1947, exports to Germany financed by the U.K. §§304,884,000* minus the included Army Civilian Supply Program of 87,124,000. ***174,452,000* minus the included Army Civilian Supply Program of 41,461,000.

U.S. Semolina Exports to Various Countries

Note: In pounds, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	1941	1942	1943	1944	1945	1946	1947	1948	1949
Honduras									111
Neth. Antilles									48
Ecuador									48
Bahamas									42
Norway						1,199	1,818		
U.S.S.R.		2,721	34,144	16,991	1,088				
Costa Rica	841	58						43	
Panama, Rep. of	716	166						40	
Cuba	40	29							17
Dominican Rep.					711	22	296	342	231
Neth. W. Indies	13	15							
Colombia	157	40	40	341	416	116	144	731	1,116
Venezuela	19	8	1	31	111	8	13	20	270
Egypt	163								
Palestine								119	
Tangier					44		22	40	38
Poland and Danzig						284			
Mexico								148	743
French W. Africa			18,418	54,016	17,586	10,313	19,951	340	
Belgian Congo		1	314		104				31
Denmark							191		
Brazil							318	816	
Portugal					432		131		
Italy							8,911	19,041	
France							3,813		
Other countries	81	3	1	137		172	44	11	15
Totals	2,181	3,131	52,848	71,522	21,134	11,480	36,794	22,077	2,883
Lend lease		3,721	12,382	73,024	18,096	3,115			
UNRRA					135				

Totals include UNRRA and Lend Lease exports but do not include shipments to U.S. armed forces abroad.

Soviet Union Exports of Grains and Flour

Note: By crop years. Source: Office of Foreign Agricultural Relations, USDA

Year beginning July 1—	Wheat including flour	Rye including flour	†Oats	Barley	¶Corn	Total grain and flour
	million bushels					1,000 long tons
1948-49	50.1	4.0	7.9	11.3	1.2	1,741
1947-48	115.2	24.3	13.4	71.3	16.8	2,441
1946-47	43.7	*	*	*	*	‡‡1
1945-46	*	*	*	*	*	*
1944-45	*	*	*	*	*	*
1943-44	*	*	*	*	*	*
1942-43	*	*	*	*	*	*
1941-42	*	*	*	*	*	*
1940-41	14.8	**5.7	‡18.4	‡23.5	*	1,191
1939-40	*	*	‡5.8	‡15.9	71.6	487
1938-39	117.8	18.2	8.1	54.7	12.3	3,572
1937-38	43.7	17.6	8.2	15.0	8.0	1,71[illegible]*
1936-37	[illegible]	4.7	8.4	1.7	0.6	288
1935-36	78.[illegible]	7.8	10.8	29.2	0.3	1,814

†Includes oatmeal and rolled oats in terms of grain. ¶Includes cornmeal in terms of grain. *Insignificant amount. ‡Estimate. ‡‡July-June estimate of exports to Germany only. **January-June, 1941 exports to Germany only.

Canadian Wheat Exports

Note: By crop years ending July 31, in bushels, 000's omitted. Source: Dominion Bureau of Statistics.

	1948-49	1947-48	1946-47	1945-46
U. K.	151,612	123,974	125,551	182,312
Eire	1,387		1,244	2,965
Aden	163	147		
Br. S. Africa	3,399		1,709	3,659
Ceylon				812
India	10,228		2,000	26,742
Pakistan	261			
Br. W. Indies	29	31	28	62
Gibraltar				209
Malta	2,265	2,162	1,957	2,803
New Zealand				3,624
Palestine	744	811		894
Arabia	148			
Austria				192
Belgium	3,726	3,535	9,344	9,477
Brazil			1,062	
Cent. America			6	
China	180			2,128
Colombia	67	93	171	1,034
Costa Rica			22	89
Cuba	12		4	82
Czechoslovakia		42		885
Dom. Republic	8	5	19	
Ecuador	118		52	
Egypt	2,158	1,745	3,954	3,287
France		4	496	8,224
Fr. Colonies				6,987
Germany	392			
Greece			341	1,821
Greenland Iceland				33
Honduras	22		11	183
Hungary		69		
Iraq Iran	308	191	957	1,579
Italy	1,324	518		387
Mexico	788			7
Morocco				2,482
Netherlands	381	1,189	7,284	15,886
Norway	918		1,442	2,792
Peru	445		228	1,161
Poland				100
Portugal	1,187		832	353
Port. Colonies	83			
Russia				8,349
Salvador	21		17	38
Switzerland	4,846	156	1,518	
Syria	478			
Trans-Jordan	78			
U. S.	4,571	116	1,883	17,428
Puerto Rico				3
Yugoslavia				1,001
Totals	178,636	135,982	162,084	273,900

Argentine Wheat Exports

Note: In metric tons. Source: Office of International Trade, U.S. Department of Commerce.

	1947	1948	1949
U. K.	412,748	46,937	
Finland	40,999	74,993	
France	7,332		12,464
Belgium	20,391	41,943	2,129
Czechoslovakia		15,040	
Italy	144,181	416,788	200,499
Netherlands	26,982		
Germany			8,725
Sweden	11,384	4,198	
Greece	1,619		
Spain	274,722	288,054	214,093
Portugal	50,189	47,489	7,099
Switzerland	74,000	130,481	
Uruguay	91,458		100
Chile	89,475		
Paraguay	25,813	8,254	18,875
Brazil	353,392	304,224	746,883
Colombia	*	11,958	
Peru	92,856	94,728	35,152
Japan			17,266
India	28,000	243,245	112,599
Total	2,229,744	2,148,429	1,438,836

*Included in other S. A. Republics.

Canadian Exports

Note: Wheat and flour in terms of wheat, by crop years ending July 31, in bushels, 000's omitted. Source: Dominion Bureau of Statistics.

	'48-'49	'47-'48	'46-'47	'45-'46	'44-'45
Aug.	19,639	14,240	27,519	44,674	24,836
Sept.	11,942	15,990	21,338	34,429	20,027
Oct.	20,813	17,294	22,623	39,178	28,210
Nov.	26,783	22,782	18,299	43,817	26,723
Dec.	18,990	20,737	17,483	42,447	18,381
Jan.	19,341	13,991	20,446	30,273	14,865
Feb.	16,224	10,745	13,639	14,909	20,11[illegible]
March	13,737	13,059	14,985	25,073	19,371
April	16,303	8,885	22,133	19,080	24,151
May	18,845	18,874	28,701	13,002	35,063
June	14,850	11,441	31,394	14,718	40,029
July	17,132	17,128	28,009	16,818	48,730
	231,592	189,475	225,897	358,054	342,889

U.S. Exports of Feeds to Various Countries

Note: In tons, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

MIXED DAIRY AND POULTRY FEEDS

	*1943	*1944	*1947	*1948	1949
Ireland	378	56	3,466	3,139	4,341
Canada	417	3,802	11,341	7,146	1,881
Br. Honduras	27	24	18	24	4
Costa Rica	473	218	246	1,254	277
Guatemala	11	10	74	86	22
Honduras	914	124	204	197	159
Pan. C. Zone	316	995	1,414	1,446	948
Pan., Rep. of	770	850	1,736	1,427	1,480
Greenland	49	...	...	...	...
Mexico	1,943	1,973	1,628	423	161
Newfoundl'd & Labrador	762	993	1,487	317	37
Bermuda	1,661	2,819	1,645	1,941	1,551
Bahamas	1,154	2,399	1,136	2,778	1,822
Jamaica	11	4	76	33	78
Trinidad & Tobago	11	413	1,072	86	719
Dom. Rep.	3	...	154	61	46
Barbados	...	...	1,124	1,234	624
Palestine	...	...	224	244	189
Cuba	391	917	3,454	3,838	4,374
Curacao	1,176	2,811	2,350	3,648	4,584
Fr. W. Indies	224	291	291	133	27
Chile	...	4	15	...	15
Colombia	31	12	...	3	1
Greece	89	1,332	...	...	...
Peru	41	71	136	33	...
Yugoslavia	117	1,845	...	...	...
Venezuela	204	143	4,131	1,474	4,195
Norway	149	...	3	...	...
Sweden	...	14	17	...	...
Albania	...	1,718	44	...	...
Phil. Rep.	34	497	924	3,131	1,288
Netherl'ds	18,611	...	1,384	142	...
Liberia	42	18	...	21	18
Belgium	14,441	1,712	8,191	33	80
France	12,998	84	1,478	...	...
Bermuda	...	...	...	...	11
Denmark	...	...	...	...	104
Japan	...	...	...	...	1,389
U. K.	...	...	...	...	32
Czecho-slovakia	34	255	...	...	...
Poland	197	379	...	...	...
Oth. countries	9	90	344	127	195
Totals	61,208	32,881	61,599	43,478	42,064

WHEAT FEEDS, BRAN, MIDDLINGS, ETC.

	*1942	*1946	*1947	*1948	1949
Canada	44	13	42	27	24
Honduras	...	...	2	...	...
Pan. C. Zone	81	34	16	81	...
Sweden	...	...	...	...	27
Norway	...	...	...	...	1,941
Pan., Rep.	47	...	41	34	...
Greenland	24	...	...	...	...
Mexico	3	7	11	3	...
Jamaica	...	...	...	115	333
Cuba	1,080	91	3,071	1,973	1,799
Dom. Rep.	...	...	28	...	6
Venezuela	...	1	1,192	472	437
Netherlands	...	...	77	...	...
Phil. Rep.	...	1	...	13	7
Newfoundl'd & Labrador	...	...	194	...	...
Bermuda	...	...	7	...	...
Curacao	28	...	...	10	...
Greece	16	10	110	4	...
Poland	19	33	11	...	...
Yugoslavia	99	33	8	...	...
Costa Rica	...	...	4	37	...
Ireland	...	...	1,414	452	1,830
India	11	...	...	...	...
Belg. Congo	...	19	...	...	...
Bahamas	...	...	...	10	33
Oth. countries	11	19	43	11	28
Totals	1,479	318	6,244	3,443	7,391

U.S. Millfeed Imports

Note: Bran, shorts and other by-product feeds, including feeds ground from bonded wheat, in tons. Source: Bureau of the Census, U.S. Department of Commerce.

	Withdrawn from bond	Direct Importations	Total
1939	41,240	148,931	189,171
1946	*	79,374	79,374
1947	5,150	47,689	52,839
1948	42,951	135,029	177,984
1949	82,879	52,431	135,080
1944	89,432	54,439	143,871
1945	68,266	87,396	155,786
1942	89,787	185,504	275,291
1941	89,948	335,999	424,147
1940	82,678	403,233	485,911
1938	117,842	341,289	458,957
1939	20,548	27,826	48,394
1937	132,338	179,167	311,571

*No milling in bond reported during 1946.

OTHER PREPARED MIXED FEEDS

	*1943	*1946	*1947	*1948	1949
Brazil	...	...	14	24	90
Canada	1,318	2,884	4,639	2,334	7,718
Costa Rica	14	18	231	298	302
Guatemala	...	...	195	...	...
Pan., Rep. of	7	112	161	191	139
Pan. Rep. of	7	112	161	194	139
Mexico	49	44	74	59	119
Jamaica	...	...	22	...	...
Curacao	22	1	21	16	161
Dom. Rep.	6	79	...	...	...
Fr. W. Indies	32	...	...	...	...
Chile	4	...	21	...	...
Colombia	39	4	1	18	...
Venezuela	3	1	179	148	1,104
Phil. Rep.	...	113	80	187	314
Honduras	...	247	1,016	911	391
Bermuda	4	34	403	705	307
Bahamas	21	...	32	146	379
Cuba	22	47	444	357	894
Newfoundl'd & Labrador	159	2	47	3	2
Palestine	19	47	118	96	133
Hungary	...	14	...	...	...
Netherlands	...	...	1,130	...	...
Trinidad	...	...	169	...	14
Denmark	...	...	1,904	...	497
France	...	...	1,091	...	81
Belgium	...	...	81	304	191
Japan	...	...	...	284	148
U. K.	...	...	...	...	4,964
Barbados	...	...	...	...	174
Iceland	...	...	...	...	104
India	...	...	...	...	27
Switzerland	...	...	...	...	19
Italy	...	...	...	...	21
Haiti	...	...	...	...	42
Oth. countries	30	21	289	153	86
Totals	1,791	3,724	17,789	4,855	18,874

OTHER FEEDS

	*1941	*1942	*1947	*1948	1949
Iceland	...	119	2,113	4,211	837
U. K.	...	91	7,519	29	23
Canada	1,486	2,145	8,882	3,876	2,843
Costa Rica	24	...	...	...	18
Belgium	...	...	4,018	484	843
Switzerland	...	...	3,749	...	160
Bolivia	...	...	183	...	...
Brazil	...	...	294	117	...
Pan. C. Zone	6	...	33	300	94
Pan. Rep.	79	79	69	794	37
Greenland	29	...	...	...	...
Mexico	90	192	291	107	104
Newfoundl'd & Labrador	34	...	631	89	...
Bermuda	...	...	16	27	24
Bahamas	31	38	454	213	317
Denmark	...	...	7,862	...	134
India	...	...	199	...	...
Cuba	1,143	1,437	344	37	24
France	4	...	3,145	...	783
Curacao	69	3	37	42	132
Dom. Rep.	24	3	119	14	4
Fr. W Indies	...	...	...	18	33
Colombia	49	3	...	...	...
Ecuador	...	...	41	37	158
Venezuela	...	...	631	149	187
Poland	234	243	934	...	...
Phil. Rep.	...	3	287	392	357
Italy	...	24	1,251	1,212	...
Czecho-slovakia	...	213	...	...	...
Yugoslavia	232	151	193	...	...
Trinidad & Tobago	...	28	13	...	...
Greece	127	4,855	37	...	...
Saudi Arabia	...	...	92	189	140
U.S.S.R.	1,974	...	...	...	...
Netherlands	...	...	...	54	...
Germany	...	...	...	38	...
Austria	...	...	...	278	...
Peru	...	...	...	...	6
Chili	...	...	...	...	510
Japan	...	...	...	...	102
Oth. countries	6	7	72	162	28
Totals	4,614	9,840	41,021	13,403	6,690

*Includes Lend Lease and UNRRA shipments.

U.S. Trade in Soybeans

Note: In pounds, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	Exports	Imports
1949	1,012,832	274
1948	349,533	96
1947	121,908	...
1946	174,000	...
1945	413,913	268
1944	36,141	...
1943	78,771	...
1942	18,965	9
1941	18,394	53

U.S. Exports by Crop Years

Note: Wheat, flour and grain exports by crop years, ending June 30. Source: U.S. Bureau of Foreign and Domestic Commerce.

	Wheat, bu.	Flour, sacks
1949	176,187,000	27,871,000
1948	204,000,000	78,400,000
1947	176,106,000	83,116,000
1946	226,216,000	46,667,000
1945	18,816,000	18,136,000
1944	11,943,000	16,300,000
1943	8,646,000	11,106,000
1942	12,632,000	8,773,000
1941	15,816,000	12,406,000
1940	17,036,000	13,777,000
1939	24,128,000	13,000,000
1938	21,700,000	9,700,000
1937	3,146,000	7,001,000
1936	311,000	6,613,000
1935	2,010,000	7,720,000
1934	16,700,000	7,001,000
1933	26,667,000	4,481,000
1932	26,621,000	10,200,000
1931	76,363,000	21,044,000
1930	82,173,000	21,000,000
1929	103,113,031	21,200,000

COARSE GRAIN EXPORTS
(In bus. 000's omitted)

Years ending June 30—	Barley	Corn	Oats	Rye
1949	24,478	118,110	18,152	1,431
1948	16,726	30,563	11,290	5,207
1947	18,230	105,183	17,717	675
1946	1,567	13,510	18,201	6,161
1945	775	15,397	200	1,747
1944	404	*	333	150
1943	418	6,087	278	15
1942	1,546	4,395	804	23
1941	670	10,008	150	305
1940	5,844	24,913	304	733
1939	11,216	56,260	4,085	734
1938	17,414	103,959	13,561	6,576
1937	8,143	346	57	348
1936	3,646	372	743	9
1935	4,840	1,857	377	...
1934	3,835	4,404	481	21
1933	8,116	6,193	4,985	211
1932	5,094	3,344	3,479	663
1931	10,190	2,179	907	179
1930	13,646	9,154	4,616	1,336
1929	16,698	10,749	16,846	9,346

*Not available. †July-December.

U.S. Wheat and Flour Exports

Note: 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	Flour 100-lb. sacks	Flour In terms bu. wheat	Wheat bu.	Tot. flour & wheat bu.
1949	15,218	76,712	346,190	422,902
1948	75,055	378,379	327,503	705,882
1947	78,267	378,482	189,956	568,438
1946	49,583	248,793	287,135	535,928
1945	16,565	87,720	158,760	246,480
1944	16,357	79,512	16,070	95,582
1943	13,197	58,895	13,841	72,842
1942	8,589	38,208	8,615	46,823
1941	11,484	56,867	13,108	69,975
1940	13,357	66,086	24,379	90,474
1939	13,194	64,795	45,324	99,919
1938	10,245	54,964	56,902	110,866
1937	9,761	50,258	34,849	85,107
1936	7,202	34,801	1,479	36,744
1935	8,478	42,189	224	42,413
1934	8,139	40,130	16,070	56,120
1933	7,747	38,238	7,983	46,218
1932	11,354	56,867	84,679	141,536
1931	22,812	114,498	99,311	214,719
1930	20,597	103,076	87,774	187,850
1929	24,779	123,850	96,139	219,989

Canadian Millfeed Exports

Note: Bran, shorts and midds., in cwt. (100 lb.). Source: Dominion Bureau of Statistics.

To Empire—	1948-49	1947-48	1946-47
Bermuda	14,962	20,324	24,243
British Guiana	1,598	3,183	2,205
Br. West Indies	32,140	56,938	32,987
Hong Kong	3,464	...	...
Newfoundland	10,349	18,102	14,774
Foreign countries—			
Czechoslovakia	...	...	850
France	...	...	320
St. Pierre and Miquelon	810	2,818	1,950
Greenland	...	...	...
Iceland	25,555	4,805	9,700
Netherlands	1,182	...	...
Poland	...	...	4,310
U. S.	912,951	494,792	494,201
Alaska	25	...	...
Hawaii	22,995	...	...
Totals	1,078,579	619,939	589,261

U.S. Barley Exports to Various Countries

Note: By years, in bushels of 48 lb., 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	1918	1919	1947	1948	1949	1944	1942	1940	1941	1946	1939
Australia					938						
Austria	897	159	1	256							
Belgium	1,354		18	435	89					183	212
Canada	1,618	24	334		12						204
Denmark	147										
Korea		167									
Japan	14,834	4,041									
France	1,274										
Fr. Morocco				83	894						
Fr. W. Africa						8	143				
Germany	1,933	2,779	766								
Greece	749		57	194	30						
Ireland	2	1		1	2						
Mexico	391	208	232	391	347	254	147	112	178	404	254
Netherlands	3,743	413		97	187						143
New Zealand					244						
Norway				194							114
Poland			118								
United Kingdom								18		312	4,477
Portugal				3					193		
Spain									143		
Switzerland	211		14					194	411		
U.S.S.R.					179	2	142	143			
Other countries	491	4	1	14	1	2	2	11	3	12	12
Totals	18,102	13,617	1,518	1,467	2,848	566	487	477	1,318	1,400	5,413
Lend Lease					1,908	11	243	112			
UNRRA				451	18						

Totals include UNRRA and Lend Lease exports but do not include shipments to U.S. armed forces abroad.

U.S. Wheat Flour Exports

Note: Flour exports to noncontiguous territories in sacks. These figures are not included in the tables showing total export shipments from the U.S. Source: Bureau of the Census, U.S. Department of Commerce.

	Pacific Islands	Virgin Isls.	Alaska	Hawaii	Guam	Wake
1948	1,044,742	11,114	4,947	1,424		84
1949	1,190,330	17,478	5,132	11,312		19
1947	1,114,818	11,799	1,991	1,199		
1946	1,018,197	16,857	1,131	1,100		
1940	330,942	11,110				
1941	2,484	91				
1942	8,184	159				

Star of the West Milling Co.

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High Grade Michigan Soft Wheat Flours

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FRANKENMUTH, MICHIGAN

U.S. Grain Exports

Note: By calendar years, in bushels, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	Corn	Oats	Rye	Barley
1949	123,952	11,788	2,180	19,101
1948	12,895	11,119	1,110	13,617
1947	87,328	4,973	1,783	1,518
1946	16,873	15,597	2,176	1,407
1944	16,459	5,017	1,964	2,858
1943	10,131	292	47	554
1942	5,157	122	78	487
1941	8,798	418	11	827
1941	19,359	336	13	1,218
1940	10,117	188	990	1,453
1939	32,117	378	84	5,458
1938	147,591	4,617	3,347	16,170
1937	5,834	6,728	4,343	11,473
1936	574	317	4	7,377
1935	177	183	5	7,507
1934	2,947	141	8	5,447
1933	5,183	1,478	49	7,143
1932	7,888	3,458	1,896	7,943
1931	8,708	2,121	121	7,851
1930	8,289	1,561	266	9,874
1929	35,745	8,809	3,434	29,523
1928	16,759	15,421	14,499	31,878
1927	15,428	10,855	35,941	37,873
1926	22,984	11,596	11,841	13,508
1925	12,782	28,442	24,876	29,689
1924	15,316	3,895	31,394	10,179

U.S. Wheat, Flour Imports

Note: By crop years ending June 30. Source: U.S. Department of Commerce.

	Flour, sacks	Wheat, bu.
1949-50	31,100	1,110,000
1947-48	2,840	141,000
1946-47	1,000	2,016,000
1945-46	32,000	11,181,000
1944-45	82,000	51,387,000
1943-44	41,787	151,355
1942-43	41,813	8,833,000
1941-42	74,788	15,326,000
1940-41	122,000	18,732,000
1939-40	119,000	10,094,000
1938-39	183,000	9,235,000
1937-38	48,000	5,421,000
1936-37	86,000	47,731,000
1935-36	89,000	46,472,000
1934-35	8,000	*25,116,000
1933-34	1,817	*11,480,437
1932-33	1,218	8,378,000
1931-32	531	12,844,959
1930-31	3,194	13,013,000
1929-30	3,159	12,946,000
1928-29	8,131	21,429,774
1927-28	13,279	15,796,784
1926-27	11,879	13,235,288
1925-26	54,144	35,687,147

*Including 14,053,000 bus for domestic consumption, of which 8,144,000 was for feed. †Including 142,000 bu. for domestic consumption, of which 8,000 was for feed.

Canadian Wheat Flour Exports

Note: By crop years ending July 31, in barrels. Source: Dominion Bureau of Statistics.

	1948-49	1947-48	1946-47
U. K.	3,359,351	4,653,648	7,873,681
Aden	16,294	196	
Br. E. Africa	3,434	1,876	1,734
Br. S. Africa	50,347	16,774	104,191
Gambia		1,048	3,291
Nigeria	3,521	1,329	7,914
Gold Coast	11,684	14,471	14,204
Sierra Leone	16,935	17,843	28,519
Br. Rhodesia	159		
Bermuda	12,434	16,479	30,934
India	352	427,489	394,548
Pakistan	193,232		
Ceylon			32,824
Straits Set.			18,641
Br. Malaya			22,883
Br. Guiana	201,488	299,181	186,785
Br. Honduras	7,744	7,899	14,992
Br. W. Indies	1,091,879	1,174,975	1,116,915
Eire	4,351	245,435	324,919
Gibraltar	26,444	274	16,435
Hong Kong	299,961	8,195	16,887
Malta			13,241
Newfoundland	233,774	241,474	201,264
Palestine		2,938	
Total Br. Empire	7,244,329	11,241,440	11,963,912
Aden	16,541		
Austria		6,483	3,869
Belgium	77,423	77,394	32,134
Belgian Congo	21,944	4,239	19,241
Bolivia	1,854		294
Brazil	43,571	176,518	447,854
Burma	1,019		
China	77,416	19,423	1,411,833
Colombia	3,128	524	11,599
Costa Rica	23,839	21,819	41,591
Cuba	133,942	92,995	14,424
Czechoslovakia			43,879
Denmark	1,035	3,893	1,339
Ecuador	14,999	11,351	39,479
Egypt	16,714	32,888	418,994
Finland			753
France		118,347	13,761
Fr. Africa	1,089	1,289	7,147
Fr. Guiana	1,893	8,312	18,597
Fr. Oceania	2		
Fr. W. Indies	321	11,547	195,748
St. Pierre and Miquelon	4,987	3,199	3,287
Germany	171,939	128,134	255,232
Greece	15,935	1,161	168,571
Greenland			
Iceland	32,646	16,638	42,816
Guatemala	24,874	15,435	18,483
Haiti	16,483	15,945	18,110
Honduras	3,764	3,928	6,992
Indonesia	3,161		
Iraq, Iran	782		
Italy	193,962	414,456	1,418,546
Japan	837		
Liberia	2,519	3,832	2,842
Mexico			1,958
Morocco	28,411	1,326	
Netherlands	11,710	33,199	3,431
Neth. E. Indies		3,437	19,099
Neth. Guiana	13,309	13,831	13,591
Neth. W. Indies	32,436	40,854	40,248
Nicaragua	5,767	1,738	3,864
Norway		316,893	624,199
Palestine	13,093		
Panama	11,807	18,411	31,196
Peru	12	2,163	3,133
Poland			27,304
Portugal	20,832	16,218	35,993
Azores and Madeira	3,720	16,892	18,593
Port. Africa	15,834	12,424	14,837
Port. Asia	15,918	9,177	3,447
Portugal	8,793	6,743	7,242
San Domingo	18,114	28,988	45,529
Siam	13,247		
Spain	107		2,937
Spanish Africa	879		
Canary Islands	3,474		3,893
Switzerland	105,274	24,891	5,424
Syria	154,898	72,574	25,404
Trans Jordan	3,427		
U. S. S. R.	83,909	187	1,283
Alaska	586	133	149
Am. Virgin Is.	58	1,753	2,860
Hawaii	2,251		
Philippine Is.	143,383	191,281	414,339
Venezuela	164,947	217,993	316,895
Yugoslavia	3,133		543
Total Foreign Countries	2,116,147	1,924,709	4,758,187
Grand Total	13,787,479	15,896,154	17,480,159

U.S. Wheat & Rye Consumption

Note: Total and per capita consumption of wheat and rye by calendar years. Source: USDA.

Year	Wheat: Total consumed for food, Total mil. bu.	Wheat: Total consumed for food, Per capita*, lb.	Wheat: Per capita consumption of products, Wheat flour†, lb.	Wheat: Per capita consumption of products, Cereal, lb.	Rye: Total rye consumed, Total mil. bu.	Rye: Total rye consumed, Per capita*, lb.	Rye: Per capita consumption of rye flour, lb.
1949			‡137				
1948‡	474	194	136	3.5	5.4	2.1	1.6
1947	465	194	136	3.5	5.6	2.2	1.7
1946	490	211	154	3.5	6.1	2.4	1.9
1945	488	228	158	3.7	7.6	2.5	2.8
1944	473	220	154	3.7	7.9	3.4	2.4
1943	503	233	164	3.8	9.1	4.0	3.1
1942	492	223	155	3.6	7.6	3.3	2.5
1941	478	217	150	3.6	6.5	2.8	2.2
1940	468	213	147	3.6	7.3	3.1	2.6
1939	474	218	151	3.8	6.9	2.9	2.2
1938	480	220	153	3.7	6.3	2.7	2.1
1937	474	219	152	3.5	6.4	2.8	2.1
1936	485	226	157	3.5	7.0	3.0	2.3
1935	468	218	150	3.6	7.6	3.3	2.5
1934	463	219	152	3.2	7.5	3.3	2.5
1933	489	228	152	2.5	7.7	3.4	2.6
1932	470	224	156	2.5	8.9	4.0	3.0
1931	487	234	165	2.5	10.1	4.5	3.5
1930	509	242	169	3.1	9.4	4.2	3.2
1929	501	243	171	3.5	9.5	4.5	3.4
1928	510	252	176	3.3	9.6	4.3	3.4
1927	483	247	172	3.6	8.8	4.6	3.5
1926	482	250	174	3.8	10.0	4.7	3.6
1925	490	247	172	3.0	8.5	4.7	3.6
1924	477	249	173	2.5	8.5	4.0	3.5
1923	471	251	174	2.6	9.6	4.4	3.4
1922	476	257	179	2.6	8.5	4.8	3.7
1921	459	252	175	2.4	8.4	4.5	3.7
1920	472	264	184	3.3	11.3	5.9	4.5
1919	491	279	188	3.2	16.9	8.0	4.9
1918	411	234	165	3.2	18.7	10.1	7.8
1917	458	261	196	3.0	15.0	9.0	6.5

Consumption data for most grain products are measured at the processing level. Civilian consumption only beginning 1941. *Grain equivalent. †Includes white, whole wheat and semolina flour. ‡Preliminary.

Millers National Federation Presidents

The names of presidents of the Millers National Federation, with their periods of office, are shown herewith:

B. A. Eckhart, Chicago, Ill., 1902-04; Charles Espenschied, St. Louis, Mo., 1904-06; John W. Burk, Springfield, Ohio, 1906-08; William E. Castle, Louisville, Ky., 1908-10; Dwight M. Baldwin, Jr., Minneapolis, 1910-11; Hosea B. Sparks, Alton, Ill., 1911-12; Andrew J. Hunt, Arkansas City, Kansas, 1912-14; Mark N. Mennel, Toledo, Ohio, 1914-16; Samuel Plant, St. Louis, Mo., 1916-18; Fred J. Lingham, Lockport, N. Y., April-July, 1918; E. M. Kelly, Nashville, Tenn., 1918-20; A. L. Goetzmann, Minneapolis, Minn., 1920-22; Charles L. Roos, Wellington, Kansas, 1922-24; Sydney Anderson, Minneapolis, Minn., 1924-29. In 1924, the executive set-up was changed, Mr. Anderson remaining president, and the following successively holding the office of chairman of the board of directors: T. R. Bligh, 1924-25; B. W. Marr, 1925-27; H. L. Beecher, 1927-28; C. B. Warkentin, 1929-31; Edgar H. Evans, 1931-32; Frank Hutchinson, 1932-33. In 1933, the office of president was re-established to supplant the chairmanship of the board, and Fred J. Lingham, of Lockport, N. Y., became the incumbent. He was succeeded by Jess B. Smith, of Salina, Kansas, in 1934. With the inauguration of a campaign to increase flour consumption, sponsored by the Federation, and the creation of the Wheat Flour Institute, Mr. Smith served as full-time president from 1934 to 1937, with Frank J. Allen, of Winona, Minn., as chairman of the board.

The title of president was added to that of chairman of the board in 1937, when O. D. Fisher, Seattle, Wash., was elected to the office. He was succeeded in 1938 by Fred Borries, Louisville, Ky. Ward Magill, Wichita, was chosen in 1940 to succeed Mr. Borries. Mr. Magill was re-elected in 1941; Willis C. Helm was president in 1942 and 1943; Carlton D. McKenzie in 1944-45; W. P. Bomar in 1946-47; John L. Locke in 1948-50.

In 1929, when Mr. Anderson resigned the presidency, George Livingston was named executive vice president, in which capacity he continued to serve until his resignation in 1938.

U.S. Per Capita Grain Products Consumption

Note: Apparent civilian consumption per capita basis, by calendar years, in pounds. Source: USDA

Commodity—	Average 1935-39	1943	1944	1945	1946	1947	1948	1949 prel.	Forecast for 1950
Grains—Corn products:									
Corn meal	22.9	21.0	20.4	19.3	15.9	14.4	14.3	15.0	15.9
Corn sirup	7.6	13.1	11.5	13.7	11.9	12.6	8.3	8.5	8.5
Corn sugar	2.7	4.3	3.9	3.8	3.9	4.5	4.9	5.2	4.7
Breakfast cereals	1.6	2.6	2.3	2.2	2.0	1.7	1.5	1.6	1.4
Hominy	3.4	1.6	1.8	1.7	2.4	3.4	2.4	2.4	2.4
Oatmeal	3.8	4.6	3.2	4.1	3.7	3.5	3.2	3.3	3.3
Barley food products†	1.1	1.3	1.3	1.2	1.9	1.9	1.3	1.2	1.2
Wheat—									
Flour‡	153.3	162.7	162.1	158.8	154.0	136.3	136.4	137.0	137.5
Breakfast cereals	3.7	3.7	3.7	3.5	3.5	3.6	3.5	3.5	3.2
Rye flour	2.2	2.3	2.4	2.6	1.8	1.8	1.4	1.3	1.6
Rice, milled	5.5	4.8	4.8	4.7	4.8	5.6	5.8	5.7	5.5

Data for 1949 preliminary, 1950 forecasts. †All barley food products in terms of malt equivalent. ‡Includes white, whole wheat and semolina flour.

U.S. Wheat Consumption

Note: Wheat consumption, total and specified per capita use by civilian population, by crop years*. Source: USDA.

Year beginning July	Total civilian food use*, mil. bu.	Per cap. consumption: Total wht., lb.	Per cap. consumption: Flour, lb.	Breakfast cereals: Cereal wt., lb.	Breakfast cereals: In terms of flour, lb.
Average 1935-39	473	219	153	3.1	3.1
1947	485	204	§140	§3.3	1.9
1948	479	195	§137	§3.3	1.9

*Includes military personnel eating out of civilian supplies. †Includes breakfast food milled outside of the commercial milling industry. ‡Calendar years. §Determination recognizes that flour exports were at a longer extraction rate than was domestic flour. (Comparable to the unrevised 13 lb. for 1947-48 12.7 for 1935-39) previously used, determinations for which were made by using different conversion factors than at present and also by making allowance for wheat used in combination with other grains. No allowance is now made for the latter.

Sales Contracts

The Millers National Federation Sales Contract, the Bakery Flour Contract and the Uniform Sales Contract of the National Association of Flour Distributors have appeared in previous issues of the Almanack and may be consulted there by those who have occasion to examine them. Copies may be obtained upon request to The Northwestern Miller or any of its branch offices.

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For Additional Facts:

Baking Section, Pages 49-57
- State Bread Laws
- Industrial Movies

Foreign Section, Page 112
- Bleaching Regulations
- Crops
- Packaging Regulations
- Self-Rising Flour Regulations

Grain Section, Pages 61-93
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Information About the Baking Industry

THE baking industry highlight in the year 1949 was the gigantic baking industry exposition, largest show of its kind ever held, which drew the greatest crowd of bakers and allied trades men ever assembled to the huge Atlantic City Municipal Auditorium Oct. 15-20. More than $2,000,000 worth of baking equipment and supplies was on display in the exhibits of 271 allied companies serving the baking industry. The show required more than 100,000 sq. ft. of floor space on two floors of the auditorium.

Sponsored jointly by the American Bakers Assn. and the Bakery Equipment Manufacturers Assn., it was the first baking industry exposition held since 1936. Registration for the exposition totaled 13,412 persons, of whom 5,611 were listed as bakers.

★ ★ ★

The year 1949 also saw the end of the formal hearing held by the Federal Security Agency to determine definitions and standards of identity for various breads and rolls or buns. The hearing, held in Washington, ended Sept. 20 after a total of 149 days of testimony. It had been resumed Nov. 30, 1948, after a wartime recess. Industry observers have predicted that it would perhaps be late 1950 before the final bread standards go into effect.

★ ★ ★

The Bakers of America Program, the industry's first cooperative effort at national advertising and promotion, passed successfully through a financial crisis during 1949. An intensive drive for funds to continue the program into the 1950-51 phase was made during the year and in December the board of governors of the American Bakers Assn. indicated that the necessary minimum funds were in hand and instructed the officers in charge of the program to proceed with plans for its continuance. An emblem of membership designed to identify subscribers to the program was adopted and extensive plans were made to introduce it to consumers as a mark of distinction in the baking industry.

★ ★ ★

Final figures of the 1947 census of manufactures released during 1949 indicated that the value of products in the "Bread and Other Bakery Products" industry had increased approximately 127% since the last previous census was taken in 1939. In the "Biscuit, Crackers and Pretzels" industry, which was surveyed separately, value of products was reported approximately 169% above 1939. Further statistics contained in the report of the Bureau of Census appear in tables presented in this section of the Almanack.

More recent surveys concerned with sales and profit figures in the baking industry during the calendar year 1949 indicated that sales were slightly higher than the preceding year, although profits were reported decreased from 1948 by approximately 3.5%. The Department of Commerce indicated that the sales of the nation's independent retail bakeries were 7% lower during 1949 than during 1948.

★ ★ ★

The annual reports of the big chain bakeries for the calendar year 1949 were unanimous in blaming the 21-week strike in the New York area for the reduction in 1949 profits as compared to 1948. The strike, involving bakery salesmen in the Greater New York area, began Feb. 28, 1949, and continued until late July. It was the longest and most costly strike the baking industry has ever experienced.

Another revolutionary development on the labor front during 1949 was the announcement by officials of the Bakery and Confectionery Workers International Union of their intention to seek nationwide contracts with all interstate baking firms.

★ ★ ★

Legislation requiring the enrichment of white bread and flour was passed during 1949 legislative sessions in three states—Colorado, Nebraska and Ohio. This brought the list of states having such laws to 26, in addition to two territories of the U.S. The U.S. Department of Agriculture, after a survey of 17 firms manufacturing or selling enriching ingredients, reported that sales of these ingredients in 1946-48 were sufficient to enrich about 65% of all white flour sold for civilian use in those years either at the mill level or in bakeries. This level of enrichment of white bread was equal to the rate of enrichment under the federal compulsory enrichment program during 1943-46, the USDA pointed out.

A significant milestone in the enrichment program was passed during 1949 with the release of the results of the Newfoundland Nutrition Surveys. The information obtained in the 1948 survey of health conditions in Newfoundland, as compared with one made in 1944, clearly showed the great advance in health that had occurred in Newfoundland as a result of the enrichment program.

★ ★ ★

The "Brown 'n Serve" process was announced by General Mills, Inc., late in 1949. The new production process, designed to achieve maximum table freshness by the final browning or baking in the housewife's oven of pre-processed bread products of the commercial bakeshop, was presented to the baking industry by General Mills, Inc.

Laws Governing the Sale of Bread

ALABAMA

All bread must be enriched except bread made from the entire wheat berry with no parts of the wheat removed, bread made from mixtures of white flour and whole wheat flour and specialty breads. It is unlawful to sell or offer for sale any enriched bread which fails to conform to the labeling requirements of the Federal Food, Drug and Cosmetic Act, and the regulations promulgated thereunder. (See page 4.) Bread must be wrapped or packaged individually or in unit quantities and sealed. The wrapper must enclose or have printed or stamped thereon the name and address of the baker.

ARIZONA

The manufacture and sale of bakery products must be so conducted as to prevent the dissemination of disease. No bakery product may be returned after purchase, or accepted or exchanged after sale. The vehicles and receptacles in which bakery products are transported must be in a clean and wholesome condition; containers and places where bakery products are kept or exposed for sale must be kept well covered and properly ventilated. Wrapped bread and not otherwise to be covered. Bread must not be placed in any box or receptacle with any other article of food. A loaf of bread, sold, offered or exposed for sale, as fresh bread, must weigh 1 lb., 1½ oz. or multiples of 1 lb., determined by the average of not less than 10 loaves of 1 unit, of one kind of bread, weighed with or without wrappers and not less than 12 hours after baking. When two or multiple loaves are wrapped at the place where baked, or sold to the consumer wrapped and individual, the loaf must conform to the weight requirements and if unwrapped or divided prior to sale each unit must conform to weight requirements. A tolerance in excess of the standard weight is allowed of 1 oz. on 1 lb. loaves; 1½ oz. on 1½ lb. loaves, 2 oz. on loaves weighing 3 lb. or more. No tolerance below the standard weight is allowed. Supervising authority: State Department of Health, Phoenix.

ARKANSAS

Bread when displayed must be placed in light cases or otherwise protected and when transported must be suitably wrapped or packed in clean containers at the shop or plant where baked. It is unlawful for any person to manufacture, bake, sell or offer for sale or to receive in interstate shipment for sale for human consumption, any bread, except 100% whole wheat, unless it has been enriched in accordance with the definition of enriched bread as promulgated by the Federal Security Agency. The label must conform to the requirements of the Food, Drug and Cosmetic Act. (See page 4.)

CALIFORNIA

Bread sold in wrappings must have on the body of the wrapping in letters so as to be clear and legible to the buyer and in a color contrasting with the background, the words "Standard loaf" and "Standard large loaf." "Standard loaf" must weigh not less than 11 oz. and not more than 17 oz. "Standard large loaf" must weigh not less

U.S. Baking Industry, General Statistics for 1947 and Earlier Years

Note: These figures cover establishments primarily engaged in the manufacture of bakery products. These establishments are classified in two industries: those chiefly engaged in manufacturing bread, cakes, hand-made cookies, doughnuts, pies, pastries and similar perishable bakery products and those engaged in producing "dry" bakery products such as biscuits, crackers and pretzels. **Source: U.S. Bureau of the Census**

(Money figures in thousands of dollars)

Industry and census year	No. of establishments	All employees: Number (aver. for the year)	All employees: Salaries and wages, total	Production and related workers: Number (aver. for the year)	Production and related workers: Wages, total	Value added by manufacture*	Cost of materials, fuel, electricity and contract work	Value of products shipped†
Bread and other bakery products—								
1947 total	8,797	232,316	$633,979	158,955	$351,128	$1,100,836	$1,318,064	$2,418,891
Bakeries selling primarily to grocers	2,456	136,887	397,262	95,800	194,529	673,961	819,724	1,493,685
Bakeries selling primarily to hotels, restaurants and institutions	1,584	26,976	72,001	24,203	67,854	120,393	164,966	271,363
Retail multi-outlet bakeries	1,964	26,482	54,213	18,540	43,129	104,868	114,944	219,812
Bakeries selling primarily through house-to-house routes	824	30,724	98,752	14,894	33,762	149,805	132,132	281,937
Grocery chain bakeries	89	11,979	29,541	19,758	28,198	53,909	98,265	150,174
1939‡	18,522	‖217,090	‖298,860	‖190,202	‖238,578	573,837	491,498	1,065,335
1939§	**18,043**	**247,301**	**330,666**	**201,323**	**262,002**	**643,307**	**567,627**	**1,211,024**
1937	**16,874**	**231,356**	**304,300**	**216,307**	**265,354**	**588,306**	**679,207**	**1,217,063**
1935	**16,720**	**207,771**	**255,763**	**169,165**	**222,645**	**471,736**	**580,728**	**1,052,464**
1933	**14,483**	**189,378**	**195,446**	**155,229**	**174,473**	**399,340**	**378,992**	**778,332**
1931	**17,364**	***	***	**154,764**	**218,353**	**543,373**	**436,531**	**979,904**
1929	**20,419**	**183,936**	**279,770**	**166,979**	**240,334**	**621,677**	**629,999**	**1,251,671**
1927	**17,000**	**154,245**	**239,846**	**139,013**	**207,197**	**560,406**	**585,304**	**1,145,710**
1925	**17,400**	**145,335**	**216,000**	**128,034**	**187,000**	**462,920**	**560,746**	**1,023,666**
1923	**18,577**	**142,289**	**213,579**	**127,400**	**183,221**	**425,949**	**485,169**	**911,118**
1921	**20,024**	**132,611**	**195,074**	**117,026**	**160,079**	**386,895**	**515,568**	**902,463**
1919	**24,919**	**131,304**	**168,666**	**107,251**	**131,171**	**337,771**	**610,105**	**947,876**
1914	**23,707**	**113,976**	**79,661**	**90,016**	**66,072**	**171,925**	**230,564**	**402,489**
Biscuit, crackers and pretzels—								
1947	328	48,558	109,233	27,534	74,261	264,973	275,249	540,222
1939	256	35,936	43,059	28,173	28,559	118,743	82,050	200,793
1937	319	31,877	35,148	28,791	29,841	110,543	87,755	208,298
1935	343	32,159	32,960	29,241	22,888	93,295	89,313	182,608
1933	347	29,475	26,338	27,153	23,259	92,972	56,473	149,445
1931	354	***	***	28,387	28,078	141,197	68,949	210,143
1929	275	36,300	44,670	31,075	34,260	167,300	107,101	274,400
1927	230	37,387	43,120	32,863	34,028	141,058	107,932	248,990
1925	184	36,918	41,139	33,277	31,946	137,359	107,268	244,627
1923	187	39,868	49,500	35,117	31,364	122,437	89,351	211,788
1921	189	36,435	38,571	31,474	29,110	104,463	83,046	187,509
1919	176	41,230	38,171	34,241	26,944	100,487	103,134	204,921
1914**	166	30,083	14,953	25,938	10,794	45,810	43,674	89,484

***Not available.

*Value of products less cost of materials, supplies, fuel, electricity and contract work.

†For 1947 and 1939, value of products shipped; for all other years, value of products made.

‡The 1939 figures in regular type are based on retabulations of 1939 census schedules classified in accordance with 1947 industry definitions and, except for production worker data, are comparable with the figures for 1947. The bold face figures for 1939 have not been retabulated and are comparable with the figures for earlier years.

‖Estimated by applying to retabulated data on number and wages of production workers the following ratios, respectively, computed from published 1939 statistics: (1) Total number of employees to number of production workers in establishments classified as "wholesale" and "wholesale and retail" and (2) wages paid to all employees to wages paid to production workers in the same categories.

§Figures are for wage earners, including driver-salesmen, and are not comparable with 1947. Analysis of a sample of 1939 returns indicates that somewhat over 19% of these wage earners were driver-salesmen.

**"Biscuit, crackers and pretzels" was formerly a part of the discontinued classification "bread and other bakery products." Separate figures are therefore not available for years prior to 1914.

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than 22½ oz. and not over 23½ oz. Each unit of a twin or multiple loaf must conform to the standard weights specified for standard loaf or standard large loaf or any multiple of either of such weight.

COLORADO

Before bread is taken from the bakeshop, each loaf or double loaf must be placed in a suitable paper bag or be securely wrapped with clean glazed paper. Bread at all times must be thoroughly protected from contamination.

CONNECTICUT

Bread wrapped in paper or other material must have on the outside of the wrapper a plain statement of weight. If unwrapped, each loaf must have either a pan impression of the weight or a label attached to the loaf on which its weight is plainly printed. Bread must weigh 1 lb., 1½ lb. or some multiple of 1 lb. No loaf must vary more than 1 oz. per pound from the standard or marked weight within 12 hours after baking. All bread wrappers must be printed with the name and address of the baker. The baker who sells in bulk through stores must furnish suitable wrappers bearing the name and address of the manufacturer for use of the retailer in packaging bread for retail sale.

DELAWARE

All bread made from wheat flour in whole or in part must weigh at least 1 lb. avoirdupois.

DISTRICT OF COLUMBIA

Every loaf of bread manufactured for sale, sold or exposed for sale must have affixed in a conspicuous place a label at least 1 in. square or 1 in. in diameter on which must be printed in plain bold face Gothic type not smaller than 12 pt. the weight of the loaf in black ink on white paper. The business name and address of the baker must be plainly printed on each label. Standard loaf sizes are ½ lb., 1½ lb. or multiples of 1 lb.

FLORIDA

Shipping baskets and other containers for transporting bread must be kept clean and used for no other purpose than the distribution of bakery products. All shipping baskets must be lined with clean paper, ventilated and properly covered. The label must include name of product, name and address of the manufacturer or distributor and net weight.

GEORGIA

Label must state net weight and name and address of manufacturer. Statement may appear on the wrapper upon the top or side or if the bread is unwrapped on the label upon the bottom of the loaf. Standard unit loaves are 1 lb., 1½ lb., 2 lb., 3 lb., 4 lb. and 5 lb.

HAWAII

Standard bread loaf sizes are ½ lb., 1 lb., 1½ lb., 2 lb. or other lb. weights. Variations at the rate of 1 oz. per lb. over and 1 oz. per lb. under the specified weights are permitted in individual leaves, but the average weight of not less than 24 loaves of any one unit of any one kind must not be less than the weight prescribed. Twin or multiple loaves may be sold provided they conform to the weight requirements.

IDAHO

A whole loaf of bread for sale must weigh not less than 16 oz. 24 hours after baking. Bread, unless composed in chief parts of rye and maize, must be sold in whole or half loaves and not otherwise. Every loaf or half-loaf which does not weigh the full weight required must be plainly labeled with the exact weight.

ILLINOIS

If bread is wrapped the true quantity must be "plainly and conspicuously" marked on the outside in terms of weight. If unwrapped or wrapped in clear cellophane, a small sticker giving the net weight and the name and address of the baker is accepted as a label. All bread in chief part of rye or maize, may be sold must be sold by weight.

INDIANA

All white bread and rolls must be enriched to conform to definition and standard of identity in effect for enriched products and must conform to the labeling requirements of the Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder (see page 4). The label requirement does not apply to white bread or rolls which bears no labeling of any kind and which is sold directly to the consumer by the manufacturer. Loaves of bread must be of the following standard weights and no other: ½ lb., 1 lb., 1¼ lb., 1½ lb., 2 lb. and some whole multiple of 1 lb. Allowable tolerances and variations must not exceed 1 oz. per lb. over or 1 oz. per lb. under the standard unit weight. Each loaf must bear a label in a "conspicuous place," which states "plainly and distinctly" the weight together with the business name of the baker or manufacturer. In case of wrapped bread this information must be stated upon the wrapper of each loaf in a "conspicuous position unobscured by the folds of the wrapper"; if unwrapped, the information must be stated upon label, affixed to the loaf which is no larger than 1 by 1½ in. in size and no smaller than 1 in. by ¾ in.

IOWA

There must be printed upon the wrapper of each loaf of bread in a "plain conspicuous" type the name and address of the manufacturer and the weight of the loaf. Bread manufactured, offered or exposed for sale must be one of the following standard weights and no other: ½ lb., 1 lb., 1½ lb., 1¾ lb., or multiples of 1 lb. In the case of twin or multiple loaves the weight specified must apply to the combined weight of the two units.

KANSAS

Bread must be wrapped in clean unused paper, unprinted or printed on one side only, or placed in a bag which must be sealed or closed. A loaf of bread for sale must weigh 1 lb. Bread, unless composed

Baking Industry — Quantity and Value of Products, 1947 and 1939

Note: These figures cover establishments primarily engaged in the manufacture of bakery products. Source: U.S. Bureau of the Census

(Quantity and value figures in thousands)

Product	Bakery products (except biscuits, crackers and pretzels) industry: Wholesale: Selling to grocery and grocery chain bakeries	Selling to hotels, restaurants and institutions	Shipped to branch	Retail: Retail outlets owned	Biscuit, crackers and pretzels industry	Other industries	1947 total	1939 total*
Bread, total value	**$973,057**	**$51,651**	**$130,999**	**$37,301**	**$1,439**	**$54**	**$1,196,600**	***
White pan—								
Pounds	7,338,748	271,489	813,727	179,711	21,324	242	8,625,247	7,118,843
Value	$783,646	$31,397	$103,135	$19,816	$1,149	$31	$937,189	$481,831
White hearth—								
Pounds	211,089	27,071	37,837	30,196	.....	.....	306,117	
Value	$35,767	$4,357	$5,954	$3,714	.....	.....	$97,842	
Whole wheat, cracked wheat and other dark wheat breads—								
Pounds	737,296	79,784	103,934	33,796	†	1,012	955,611	1,731,326
Value	$94,457	$5,338	$12,959	$4,264	†	$130	$120,487	$156,314
Rye, including pumpernickel—								
Pounds	445,745	43,331	55,897	44,825	†	550	615,391	
Value	$56,185	$7,774	$7,851	$4,139	†	$66	$76,014	
Raisin and other specialty breads—								
Pounds	138,842	11,548	21,031	20,994	261	.....	192,676	405,680
Value	$18,441	$1,487	$3,501	$3,242	$36	.....	$27,615	$37,438
Bread, not reported in detail, value	$4,031	$4,149	$367	$1,953	.....	.....	$10,000	$
Rolls, cakes, pies and pastries, total value	**$504,077**	**$170,186**	**$126,603**	**$36,301**	**$5,000**	**$1,433**	**$1,043,601**	***
Rolls, bread type—								
Pounds	664,351	185,328	48,417	81,453	†	5,634	945,791	
Value	$102,861	$35,482	$14,243	$13,419	†	$627	$163,642	
Sweet yeast goods—								1,066,301
Pounds	265,779	96,743	113,068	87,213	†	3,410	612,328	$140,535
Value	$79,651	$17,494	$38,588	$24,824	†	$690	$161,189	
Doughnuts, cake type—								
Dozens	193,456	64,542	23,264	27,901	1,445	5	309,591	336,419
Value	$46,724	$16,291	$3,853	$6,414	$313	$4	$80,201	$56,371
Soft cakes—								
Pounds	873,587	84,327	128,406	133,616	8,796	438	1,218,267	803,186
Value	$267,806	$24,841	$45,786	$46,033	$4,613	$384	$389,463	$186,131
Pies—								
Pounds	187,474	507,791	33,506	41,314	†	552	800,641	***
Value	$45,676	$70,840	$11,447	$16,601	†	$304	$145,768	$75,131
Pastries, all types, value	$6,175	$5,886	$3,122	$7,799	†	$87	$20,792	$34,348
Cookies, hand-made—								
Pounds	32,791	13,784	7,797	17,172	†	4,335	80,899	111,906
Value	$8,931	$5,033	$2,837	$6,338	†	$973	$23,113	$18,716
Rolls, cakes, pies, etc., not reported in detail, value	$6,619	$3,789	$428	$1,100	.....	$132	$12,068	$
Bakery products, not reported in detail, value‡	$42,473	$34,717	$13,194	$27,848	$161	$481	$118,875	$237,214
Biscuit, crackers and pretzels, total value	**$90,060**	**$1,335**	**$7,043**	**$3,281**	**$610,950**	**$5,277**	**$857,905**	**$215,755**
Cookies, machine made—								
Pounds	44,391	†	18,630	3,548	821,382	14,365	1,877,316	
Value	$16,832	†	$7,441	$2,464	$297,167	$3,350	$337,249	
Crackers, sponge, graham, sprayed varieties, and low-sugar custard biscuit—								1,811,050
Pounds	†							$207,631
Value	†	†	†	†	$294,369	$6,037	$313,324	
Pretzels—								
Pounds	†	†	†	†	65,535	5,233	74,168	12,331
Value	†	†	†	†	$16,954	$1,333	$17,377	$6,083
Retail outlets in operation Oct. 31	1,483	733	497	4,733	.....	.....	8,446	8,613
House-to-house routes in operation Oct. 31	1,300	777	10,771	297	.....	.....	13,505	18,473

***—Not available.

*The 1939 figures include the production of retail single-outlet bakeries and are not closely comparable with the 1947 data. Production of such bakeries accounted to about 11% of the total for 1939, but this percentage cannot be applied to specific products; the percentage accounted for by small bakeries is undoubtedly much larger in the case of specialty breads, pastries, doughnuts and hand-made cookies, and smaller for other items.

†Combined with "other industries," to avoid disclosure of figures for individual companies. Combined figures are in bold face.

‡Combined with "bakery products, not reported in detail."

§Represents total sales of companies unable to report products in detail. The value of products included other than bread, rolls, cakes and pastries is negligible.

‖In addition, 3,133 outlets were reported by grocery chain bakeries.

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in chief part of rye or maize, may be sold in whole, half and quarter loaves. Every loaf, half-loaf or quarter-loaf which does not weigh the full weight must be plainly labeled with the exact weight.

KENTUCKY

No person may manufacture, bake, sell or offer for sale for human consumption any bread unless it contained the vitamins and other ingredients necessary to make it conform to the definition and standard of identity of enriched bread or enriched white bread as fixed and established by order of the Federal Security Agency and must conform to the labeling requirements of the Federal Food, Drug and Cosmetic Act. (See page 4.)

LOUISIANA

It is unlawful for any person to manufacture, bake, sell or offer for sale or to receive in interstate commerce for sale for human consumption any bread, except bread which contains no wheat flour or is made from whole wheat flour, unless it is enriched to conform to the definition and standard of identity of bread as promulgated by the Federal Security Agency. And it must conform to the labeling requirements of the State Food, Drug and Cosmetic Law and the Federal Food, Drug and Cosmetic Act. (See page 4.) All enriched bread, when wrapped, must be labeled "Enriched Bread."

MAINE

All bread made for sale must be properly enclosed in a sanitary wrapper. All white bread and rolls must be enriched.

MARYLAND

Bread wrapping is not required, but if wrapped the quantity of the contents must be plainly and conspicuously marked on the outside in terms of weight.

MASSACHUSETTS

All white bread and rolls must be enriched to conform to the standard and tolerances adopted under the provisions of the Federal Food, Drug and Cosmetic Act and the label for wrapped white bread must conform to the labeling requirements. (See page 4.) Enriched bread must be so labeled. Bread must be sold by weight and in units of 1 lb., 1½ lb. and multiples of 1 lb. In multiple loaves each unit must conform to the required weight. Unit weights do not apply to fancy bread weighing less than 4 oz. nor to loaves bearing in plain position a "plain statement of the weight of the loaf and name of the manufacturer." This information may appear on the wrapper or if unwrapped by means of a pan impression or label not larger than 1 by 1½ in. nor smaller than 1 by 1½ in.

MICHIGAN

All bread sold or offered for sale by retail food outlets must be standardized in 12 oz., 16 oz., 20 oz., 24 oz. and 32 oz. with 1 oz. tolerance. Wrapped bread must bear the "true net weight."

MINNESOTA

Every loaf of bread offered for sale must bear a label giving the name and address of the baker and a statement of net weight. Standard sizes are: 1 lb., 1½ lb. or any multiple of 1 lb. This information must be printed in type not smaller than 3 pt. capitals. In the case of unwrapped bread the information may appear on a sticker label and in the case of wrapped bread either printed upon the wrapper or if the wrapper consists of clear, transparent wax paper or cellophane the label must be inserted underneath the wrapper on top of the loaf. This insert label must be at least 1½ by 1½ in. so that it will not slip underneath loaf where it cannot be seen and it must be printed in

Estimated Flour Consumption by the U.S. Baking Industry, by States, 1947

Note: These figures cover establishments primarily engaged in the manufacture of bakery products. Source: U.S. Bureau of the Census

(In thousands of 100-lb. sacks)

Division and state	Amount reported as consumed*	Estimated consumption of all plants included in the census†	Estimated total consumption in bakeries (including one-shop retailers)‡
United States	**97,813**	**164,810**	**133,384**
New England—			
Maine	609	829	875
New Hampshire	281	306	379
Vermont	191	203	242
Massachusetts	3,799	4,339	4,951
Rhode Island	648	675	782
Connecticut	1,085	1,239	1,483
Middle Atlantic—			
New York	11,297	12,907	15,171
New Jersey	3,028	3,457	5,133
Pennsylvania	8,338	9,541	10,489
East North Central—			
Ohio	7,204	7,348	8,844
Indiana	1,706	2,017	3,211
Illinois	8,870	6,328	8,134
Michigan	4,495	4,757	5,394
Wisconsin	1,658	1,987	2,289
West North Central—			
Minnesota	1,871	1,785	2,399
Iowa	1,794	2,008	2,433
Missouri	3,488	4,091	4,808
North Dakota	328	378	483
South Dakota	212	312	406
Nebraska	878	1,006	1,173
Kansas	904	1,019	1,194
Pacific—			
Washington	1,437	1,637	1,953
Oregon	1,077	1,178	1,391
California	6,848	7,311	9,187
South Atlantic—			
Delaware	304	340	375
Maryland	1,814	1,793	2,020
District of Columbia	941	987	1,037
Virginia	1,402	1,581	1,689
West Virginia	1,199	1,222	1,318
North Carolina	1,433	1,519	1,821
South Carolina	588	698	882
Georgia	1,653	1,948	2,069
Florida	1,268	1,499	1,754
East South Central—			
Kentucky	1,120	1,183	1,349
Tennessee	1,672	1,941	2,083
Alabama	858	922	987
Mississippi	342	392	459
West South Central—			
Arkansas	407	481	728
Louisiana	1,333	1,443	1,781
Oklahoma	1,043	1,237	1,419
Texas	4,389	4,817	5,398
Mountain—			
Montana	276	358	433
Idaho	152	183	232
Wyoming	87	97	127
Colorado	1,077	1,160	1,303
New Mexico	185	236	289
Arizona	357	394	488
Utah	384	518	594
Nevada	33	43	48

*Includes consumption indicated by plants classified in the bread and other bakery products and the biscuit, crackers and pretzels industries which submitted detailed data on consumption of various specified materials.

†Estimated by increasing reported consumption (column 1) by percentage which sales of establishments not reporting detailed data on materials consumption bore to sales of establishments reporting detailed materials consumption data.

‡Computed by increasing column 2 by percentage which maximum employment of establishments excluded from the census (single retail outlet bakeries) bore to average total employment of all establishments included in the census. It was necessary to use employment data because no sales data were available for single retail outlet bakeries. Note that because of the method of estimation these figures do not include flour used by bakeries with no employees.

bold face type that will be readily legible through the wrapper.

MISSISSIPPI

All bread manufactured for sale must be identified by marking in legible letters the minimum weight thereof with the following phrase "not less than." All bread must be wrapped in clean paper, each loaf separately, before being distributed for sale.

MISSOURI

There is no regulation requiring the wrapping of bread, but if wrapped it must bear a label containing the name and place of business of the manufacturer and an "accurate" statement of the weight.

MONTANA

Wrapped bread must be labeled in "plain, intelligible words and figures" with a correct statement of the net weight. A loaf of bread for sale must weigh 8 hours after baking one of the following weights: 1 lb., 1½ lb., 2 lb., 3 lb., 4 lb., 5 lb., 6 lb., or other multiple pound weights. Variations of 1 oz. per lb. over and 1 oz. per lb. under are permitted in individual loaves but the average weight of 25 loaves of any one unit or of any one kind must be not less than the weight prescribed for each unit.

NEBRASKA

Every loaf of bread made for sale must be one of the following weights: ½ lb., 1 lb., 1¼ lb., 1½ lb., and exact multiples of 1 lb. and no other weights. Each unit of a twin or multiple loaf must weigh one of the specified weights. The wrapper of each loaf of bread must have printed thereon in "plain conspicuous type" the weight of the loaf. Reasonable tolerances or variations are prescribed.

NEVADA

All bread manufactured, sold or offered for sale in the form of loaves must be one of the following standard weights: ½ lb., 1 lb., 1½ lb., or multiples of 1 lb. with reasonable variations in excess and deficiency allowed. A weight statement is permitted on bread wrappers for standard pound loaves as follows: "Minimum Net Weight—15 oz." In addition to the weight statement all bread must show the name of the manufacturer, packer or distributor and place of business.

NEW HAMPSHIRE

Before removal from the bakery section of an establishment, all loaves of bread must be wrapped in clean new paper plainly showing its weight and the name of the manufacturer. All white bread must be enriched.

NEW JERSEY

All bread must be sold by weight. The weight of all loaves offered for sale must be specified by the baker or dealer to the consumer, if the consumer requires it. Bread, wrapped at bakeries in wax paper or otherwise for sanitary or other purposes in advance of delivery or sale, is considered as food in packaged form and must be plainly labeled. White bread must be enriched.

NEW MEXICO

There is no specific regulation governing the sale of bread or requiring the wrapping of bread.

NEW YORK

Bread must not be manufactured for sale or sold or offered or exposed for sale otherwise than by weight. Weight standards are: 1 lb., 1½ lb., and multiples of 1 lb. Each unit of a multiple loaf must conform to standard weight. Weights are determined by the average weight of not less than 5 loaves. Such weights do not apply to loaves bearing in "a plain and conspicuous" position a "plain statement" of the net weight of the loaf and the name and address of the manufacturer upon the wrapper of each loaf if wrapped or if unwrapped upon a label affixed to the loaf in a sanitary manner. The statement upon the wrapper or label must be in plain, heavy, Gothic capital letters and figures not less than 3/32 in. in height and so placed as to appear on the top or side and not upon the end or bottom of the loaf. Unwrapped bread that is labeled may have the label upon the bottom of the loaf. White bread must be enriched.

NORTH CAROLINA

The net weight must be "plainly and conspicuously" marked on wrapped bread. All white bread including rolls and biscuits of the bread-dough type must be enriched.

NORTH DAKOTA

A loaf of bread must weigh 16 oz., 24 oz., or a whole multiple of 16 oz. These weights apply alike to each unit of a twin or multiple loaf. The required weight must as often be above as below the permissible weights. All white bread must be enriched.

OHIO

Every loaf of bread sold, manufactured for sale or exposed for sale must have affixed thereon a "plain statement in plain position" of the weight of the loaf, the business name and address of the maker, baker or manufacturer. In the case of wrapped bread the information must be stated on the wrapper of each loaf and in the case of unwrapped bread the information must appear by means of a pan impression or other mechanical means or may be stated on a label using plain legible type. Bread must not be sold otherwise than by weight and in units of not less than 16 oz.

OKLAHOMA

Bread manufactured outside the state must have pasted on each loaf a label having printed thereon the date and the hour of the day it was baked. White bread must be enriched.

OREGON

Bread baked for sale must be one of the following standard weights: 1 lb., 1½ lb., or multiples of 1 lb. The weight specified applies to each unit of a twin or multiple loaf. Wrapped bread must be marked plainly with the net weight.

PENNSYLVANIA

All wrapped bread must bear in a clear and legible manner the name of the bakery manufacturing the product. The name must clearly indicate the identity of the bakery in such a manner that its individual registration can be ascertained or the name and address of the distributor or wholesale dealer, preceded or followed by the words "Distributed by" or "Distributor" as the case may be. Packages bearing a packer's, a distributor's or wholesale dealer's name and address in lieu of the actual name of the bakery must bear a code identifying the manufacturer or bakery. When transparent wrappers are used the printed statement may be inserted in a conspicuous position between the wrapper and the top of the loaf or printed on a band or wrapper around the top of the loaf.

RHODE ISLAND

Wrapped bread must have printed thereon the name and address of the manufacturer and the net weight. White bread must be enriched.

SOUTH CAROLINA

All white bread sold, or offered for sale, must be enriched, and all enriched bread sold in the state must be labeled in accordance with the regulations of the Federal Security Agency (see page 1) governing enriched bread sold in interstate trade. The requirements do not apply to bread made from the entire wheat with no parts of the wheat removed. A label must be on each individual loaf, either printed on the wrapper or on a band around the wrapped bread, or labeled by any other practical method.

Materials Consumed in U.S. Baking Industry by Kind, 1947

Note: These figures cover establishments primarily engaged in the manufacture of bakery products. Source: U.S. Bureau of the Census

(All figures in thousands)

Material	Total for the industries	Bakery products (except biscuit, crackers and pretzels) industry — Wholesale: Selling to grocers	Wholesale: Selling to hotels, restaurants, and institutions	Wholesale: Grocery chain bakeries	Retail: Home-to-home	Retail: Retail outlets	Biscuit, crackers and pretzels industry
Wheat flour—							
Barrels (196 lb.)	87,033	60,851	3,146	3,118	7,870	3,213	14,389
Value	$176,161	$168,719	$10,728	$11,134	$18,780	$11,945	$74,486
Sugar (cane and beet)—							
Pounds	1,116,086	846,247	138,277	83,833	84,816	83,873	330,533
Value	$97,984	$84,412	$10,193	$6,879	$7,236	$6,147	$30,439
Lard—							
Pounds	360,697	197,174	78,979	12,294	35,843	15,133	108,197
Value	$93,021	$54,698	$7,639	$3,294	$6,898	$3,636	$17,843
Shortening—							
Pounds	315,871	126,468	44,267	21,620	33,833	34,302	33,388
Value	$89,776	$40,158	$13,842	$7,324	$10,133	$11,378	$18,871
Other fats and oils—							
Pounds	125,138	36,835	7,380	**	**	10,886	70,843
Value	$37,796	$7,781	$2,481	**	**	$5,358	$16,790
Dried milk—							
Pounds	273,829	146,846	26,248	16,253	16,634	9,458	6,885
Value	$78,686	$16,758	$2,889	$1,267	$3,144	$1,588	$1,881
Frozen eggs—							
Pounds	186,791	92,893	34,674	28,738	22,419	27,139	3,438
Value	$66,168	$30,862	$8,374	$9,576	$7,674	$9,757	$1,104
Dried eggs—							
Pounds	826	365	181	*	80	21	189
Value	$1,125	$446	$126	*	$147	$87	$317
Per cent of coverage†	82.7	93.7	89.2	85.8	94.3	83.8	83.8

**Withheld to avoid disclosing figures for individual companies.

*Less than 100.

†Value of shipments of establishments reporting kinds of materials consumed, as a percentage of the total value of shipments of all establishments.

SOUTH DAKOTA

There must be printed on the wrapper of every loaf of bread in plain and conspicuous type not smaller than 18 pt. Gothic capital letters and figures the name and address of the manufacturer of the bread, the net weight of the loaf and descriptive name or term designating the kind of bread, if it is not white bread. The net weight must be expressed in terms of one of the standard units of weight or in lieu of statement of weight, by the words "South Dakota standard weight loaf." This information must be shown upon that portion of the bread wrapper which can be easily seen or read by the consumer. If transparent wrapping material is used the information may be printed on a label and inserted between the loaf and wrapping. Standard weights for loaves of bread are: 1 lb., 1½ lb., and multiples of ½ lb. All white bread must be enriched.

TENNESSEE

All bread sold, offered or exposed for sale in packaged form must carry the name of the product, name and address of the party responsible for placing it upon the market, correct weight and a complete list of the ingredients.

TEXAS

All bread must be enriched except bread made from whole wheat flour or bread which contains no wheat flour. It is unlawful to sell or offer for sale enriched bread which fails to conform to the labeling requirements of the State Food and Drug Act and of the Federal Food, Drug and Cosmetic Act (see page 4) and the regulations promulgated thereunder. Bread to be sold must weigh one of the following standards of weight and no other: 1 lb. (16 oz.), 1½ lb. (24 oz.), 2 lb. (32 oz.), 3 lb. (48 oz.) or some other multiple of 1 lb. or 16 oz.

UTAH

All bread must be sold only in loaves of 1 lb. or multiples of 1 oz. in excess of 1 lb. Each loaf must have attached thereto a label plainly showing its correct weight and the name of the manufacturer. The weight markings on bread must be of type at least ¼ in. in height, in plain Gothic letters and placed in such a position as to be plainly seen and not obscured or surrounded by other designs or printing as to make it difficult to be read.

VERMONT

Each loaf of bread sold or for sale must be wrapped separately in waxed paper, tissue paper, some similar wrapper or sanitary container. Variations from the marked weight may be as often above as below the marked weight and the average weight of all loaves of the same kind, not less than six in number available for weighing at the same time and place must at least equal the marked weight of such loaves.

VIRGINIA

All bread sold, offered or exposed for sale must have conspicuously affixed thereon a label printed in English in letters and figures not smaller than ⅛ in. in height, the net weight of the loaf when baked and the name and address of the baker or manufacturer. Tolerances and variations of weight must not exceed 1 oz. on 1 lb. loaves and 1 oz. on loaves weighing more than 1 lb.

WASHINGTON

All wrapped bread must have around it or attached thereto a label which properly indicates the weight and name and place of manufacture. A loaf of bread must weigh one of the following standard weights (12 hours after baking): 1 lb., 1½ lb., 2 lb., 3 lb., 4 lb., 5 lb. or other power weights. All white bread must be enriched.

WEST VIRGINIA

All white bread, rolls and buns sold or offered for sale must be enriched and must be labeled "Enriched Bread," "Enriched Rolls" or "Enriched Buns." A label must appear on each loaf either on the wrapper or on a band around the wrapped bread, or by any other practical means.

WISCONSIN

The standard weights for loaves of bread for sale, offered or exposed for sale are: 1 lb., 1½ lb. or multiples of 1 lb. There is no specific requirement that bread be wrapped.

WYOMING

All white bread must be enriched to conform to the definitions and standards of identity as fixed and established by the Federal Security Agency pursuant to the provisions of the Federal Food, Drug and Cosmetic Act (see page 4). Label must conform to its labeling requirements.

Baking Schools

American Institute of Baking, 1135 Fullerton Ave., Chicago 14, Ill.

Arsenal Technical Schools, San Diego, Calif.

Berea College, Berea, Ky.

Boston Trade School Annex, Boston, Mass.

Culinary School of New York, 150 E. 58th St., New York City.

The Merrell Dobbins School, Philadelphia, Pa.

Dover Area Vocational School, Dover, New Hampshire.

Duluth Vocational School, Duluth, Minn.

Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis, Minn.

Ellison Vocational School, 1712 Harvard, Seattle, Wash.

Emerson Vocational High School, 140 Broadway St., Buffalo, N.Y.

Food Trades Vocational High School, 304 West 13th St., New York City.

E. C. Goodwin Technical School, New Britain, Conn.

The Irvine School, 131 Lexington Ave., New York City.

Joseph A. Lambuth, 4111 Lake Park Ave., Chicago 15, Ill.

Manhattan Baking & Cooking School, 214 West 42nd St., New York City.

Milwaukee Vocational School, 1015 No. 6th, Milwaukee, Wis.

Munger Trade School, Detroit, Mich.

National Baking School, 1314 Michigan Ave., Chicago 5, Ill.

North Texas Agricultural College, Grand Prairie Division, Dallas, Texas.

Oakland Trade School, East 18th St., Oakland, Calif.

Oklahoma A. & M. College, Okmulgee Branch, Okmulgee, Okla.

Paul Revere Trade School, 131 Barnard St., Rochester, N.Y.

San Diego City Schools, San Diego, Calif.

San Francisco Junior College, San Francisco, Calif.

Stevens Institute of Technology, 741-747 W. Jackson Blvd., Chicago 6, Ill.

South Vocational High School, Pittsburgh, Pa.

Spokane Trade School, West 714 6th, Spokane, Wash.

Springfield Trade School, Springfield, Mass.

Sumner Avenue School, 374 Sumner Ave., Newark, N.J.

Technical High School, Miami, Fla.

Vocational High School, 3rd Ave. So. & 11th St., Minneapolis, Minn.

Frank Wiggins Trade School, Venice Blvd. Olive & 17th Sts., Los Angeles, Calif.

Wilson's School of Cake Decorating, 4654 S. Parnell, Chicago, Ill.

U.S. Average Retail Price of White Bread

Note: In leading cities per pound (baked weight) of white bread, in cents. Source: U.S. Bureau of Labor.

Year—	Jan.	Feb.	Mch.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av'ge
1945	15.9	15.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	15.0
1946	15.8	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
1947	11.6	11.7	12.1	12.5	12.4	12.5	12.5	12.5	12.6	12.7	13.4	13.6	12.6
1946	8.6	8.9	8.9	9.3	9.5	10.6	10.7	11.6	11.6	11.6	11.5	11.6	10.4
1945	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
1944	8.9	8.8	8.8	8.7	8.7	8.8	8.8	8.8	8.8	8.9	8.9	8.9	8.8
1943	8.8	8.8	8.8	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
1942	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
1941	7.8	7.8	7.8	7.8	7.8	7.8	7.8	8.8	8.8	8.7	8.6	8.6	8.1
1940	8.0	8.1	8.1	8.1	8.2	8.1	8.1	8.1	8.1	7.8	7.8	7.8	8.0
1939	8.0	8.0	7.9	7.9	7.9	7.9	7.9	7.8	7.8	7.8	7.8	7.8	7.9
1938	8.8	8.8	8.8	8.8	8.8	8.8	8.7	8.8	8.1	8.1	8.1	8.1	8.4

THE BAKER'S ROYAL FLUSH

Play your hand well with the services placed at your finger tips by The W. E. Long Co. This is being done right now by bakery owners in 47 of the 48 states in matters of Accounting, Advertising, Engineering, Materials and Equipment, and Products Control.

The W. E. Long Co. is an organization of specialists who know a lot about the baking business. You get the benefit of counseling that has as background the range, perspective, and depth that can only come from the studies of many bakery interests. When this specialization analyses your local situation, you are certain to be provided with reliable answers not only to "What shall I do right now?" but also to the important and fundamental, "What shall I work toward as a long range principle?"

We'd like to tell you more about what we can do for you. Write us. There's no obligation.

the W. E. LONG co.
188 West Randolph Chicago 1, Illinois

Number of Bakeries, Employees, Material Costs, Inventories Value, 1947

Note: These figures cover establishments primarily engaged in the manufacture of bakery products. The establishments are classified in two industries: those chiefly engaged in manufacturing bread, cakes, hand-made cookies, doughnuts, pies, pastries and similar perishable bakery products and those engaged in producing "dry" bakery products such as biscuits, crackers and pretzels.

Source: U.S. Bureau of the Census

(Money figures in thousands of dollars)

Item	Industry: Bread and other bakery products, total	Bakeries selling primarily to grocers	Bakeries selling primarily to hotels, restaurants and institutions	Retail establishments	Bakeries selling through house-to-house routes	Grocery chain bakeries	Biscuits, crackers and pretzels
All establishments							
Number of establishments	6,797	2,050	1,094	1,065	634	90	206
All employees—							
Number (average for the year)	233,316	136,447	24,876	24,992	20,724	13,809	45,868
Salaries and wages, total	$458,979	$267,262	$71,091	$68,313	$94,762	$39,561	$109,233
Production and related workers—							
Number (average for the year)	158,955	88,888	20,262	18,149	14,894	10,728	37,134
Man-hours, total, thousands	338,168	196,462	44,886	44,998	32,583	21,879	78,197
Wages, total	$332,280	$196,329	$47,854	$43,128	$55,792	$26,198	$78,341
Value added by manufacture	$1,186,836	$673,861	$128,283	$104,846	$148,884	$551,800	$264,973
Establishments reporting detailed statistics							
Number of establishments	4,209	2,800	1,040	607	463	80	206
All employees—							
Number (average for the year)	224,123	133,117	24,709	24,216	20,147	13,828	45,868
Salaries and wages, total	$439,371	$260,341	$68,947	$62,633	$87,826	$39,561	$109,233
Production and related workers—							
Number (average for the year)	141,389	82,954	18,883	16,121	14,344	10,714	37,134
Man-hours, total, thousands	304,243	178,347	40,271	38,094	32,454	21,879	78,197
Wages, total	$336,877	$192,381	$46,840	$38,681	$54,663	$26,198	$78,341
Value added by manufacture	$1,067,952	$600,324	$122,236	$95,537	$147,844	$51,900	$264,973
Number of employees for pay period ended nearest Oct. 15:							
All employees	227,307	134,952	25,175	24,476	20,889	13,891	45,816
Male	179,027	111,489	19,543	14,257	20,751	8,348	33,634
Female	47,880	23,484	2,613	10,218	4,838	5,527	12,682
Production and related workers	143,917	83,115	18,644	16,229	14,496	10,642	40,787
Male	111,306	66,864	14,279	12,133	12,458	7,478	17,634
Female	32,611	17,251	4,174	4,096	2,078	3,963	23,153
Force-account construction workers	148	43	36	48	11	10	23
Administrative, supervisory, sales and all other	84,148	51,832	6,791	8,247	16,181	3,234	4,726
Male	47,421	44,573	5,862	3,974	14,251	664	4,767
Female	36,409	6,259	1,029	4,133	1,880	560	1,049
All employees, number by month—							
January	219,518	129,642	24,341	23,846	20,364	13,598	46,816
February	218,639	128,239	24,433	24,048	20,484	13,261	46,832
March	220,638	130,447	24,587	24,381	20,231	13,430	46,697
April	222,483	131,262	24,791	24,523	20,881	13,183	46,842
May	225,581	133,339	24,829	24,632	21,447	13,538	46,581
June	228,748	134,866	24,718	24,245	20,471	13,629	46,499
July	226,843	134,764	24,592	23,598	20,427	13,444	45,521
August	224,798	134,497	24,238	23,495	20,438	13,797	45,898
September	225,754	135,154	24,843	23,803	20,360	13,806	46,944
October	227,307	134,953	25,170	24,470	20,889	13,891	45,816
November	228,543	134,151	25,131	24,583	20,651	13,909	45,720
December	228,167	134,096	25,195	24,839	20,147	13,874	47,801
Cost of materials, fuel, electricity and contract work	$1,273,867	$692,819	$140,126	$106,391	$128,833	$86,262	$270,249
Materials, parts, containers and supplies	1,243,727	762,863	138,844	102,180	121,002	86,529	271,082
Fuels, total	21,470	11,301	2,350	1,774	2,030	1,074	2,174
Bituminous coal	2,890	1,627	390	81	181	143	439
Anthracite	1,139	642	140	104	208	23	219
Coke	436	233	104	33	48	.....	141
Fuel oils	7,164	1,394	901	762	883	274	830
Gas	8,649	5,041	707	709	708	808	1,563
Other fuels	3,697	2,732	221	65	063	25	253
Purchased electric energy	9,851	6,201	1,096	894	891	471	1,497
Contract and combustion work	413	353	60	32	37	.....	16
Value of inventories—							
Beginning of year, total	$141,627	$81,130	$17,183	$13,844	$16,384	$13,634	$45,279
Finished products	1,249	1,679	1,466	742	438	136	8,433
Materials, supplies and work in process	136,147	78,451	16,119	13,145	15,943	13,498	36,837
End of year, total	132,927	82,649	15,481	18,936	15,614	8,153	44,177
Finished products	2,199	3,111	1,131	739	436	162	18,799
Materials, supplies and work in process	130,428	79,538	14,350	12,219	15,178	8,991	44,378
Expenditures for plant and equipment—							
New plant and equipment	$91,672	$42,647	$6,316	$6,974	$16,586	$4,090	$14,341
Construction and major alteration of fixed plants	36,269	14,485	2,545	1,619	1,849	139	4,082
Buildings	18,782	13,331	1,693	1,342	1,478	139	4,794
Other construction	1,127	954	292	177	180	.....	007
Machinery and equipment	71,303	40,162	6,011	4,655	6,006	1,970	9,180
Production machinery and equipment	41,406	26,930	4,950	3,061	3,283	1,703	7,379
Other machinery and equipment	29,976	13,261	1,071	1,594	2,283	267	1,801
Used plant and equipment and land	3,219	2,797	473	459	001	.....	000
Number of highway type motor vehicles owned or leased—							
Trucks	19,746	*18,374	4,944	1,419	12,592	89	2,362
By manufacturer's rated capacity:							
Under 1½ tons	21,584	20,939	1,787	917	13,836	11	487
1½ tons	14,110	13,441	1,072	300	700	0	1,646
Over 1½ tons and less than 2½ tons	1,434	817	114	119	930	12	235
2½ tons and less than 5 tons	270	77	40	80	21	04	11
5 tons and over	114	60	8	34	13	.....	14
By body type:							
Van	3,491	3,778	301	245	119	35	1,112
Stake or platform	541	470	08	57	03	.....	41
Panel or light delivery	15,627	13,906	4,339	1,143	12,233	34	1,166
All other trucks	3,028	1,201	255	94	447	1	45
Truck tractors	1,869	822	43	15	174	4	93
Tractors and semitrailers	1,175	834	12	15	147	4	184

*Includes 181 tank trips

FRESHNESS NULOMOLINE

Reg. U. S. Pat. Off.

Nulomoline is a *freshness*-retaining sugar. It improves the quality and checks the staling of cakes, cookies, and icings.

Nulomoline is the *original* standardized invert sugar, made for and used by bakers for more than 32 years.

Packed in barrels, drums, half-barrels, and 50-pound pails.

THE NULOMOLINE DIVISION (AMERICAN MOLASSES CO.)

Manufacturers of NULOMOLINE (Standardized Invert Sugar) and Syrups

TRICOL

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TRICOL is especially made to impart *balanced flavor* and *sweetness* to golden brown breads.

AMERICAN MOLASSES COMPANY

Makers of all grades of Molasses and Syrups

NEW YORK 5, N. Y. — CHICAGO 11, ILLINOIS — LOS ANGELES 21, CALIFORNIA
120 Wall Street — 330 E. N. Water Street — 751 Terminal Street

Write for practical information and formulas for baked products and icings

Industrial Movies

The following industrial movies are available from the firms and organizations designated below. They illustrate many processes and techniques used in modern baking.

THE BAKING INDUSTRY—Film No. 103 —208 ft. This is an occupational information type film. It shows the various jobs in the baking industry. Produced: Vocational Guidance Films, Inc., available: **Carl F. Mahnke Productions, 215 East Third St., Des Moines 9, Iowa.**

FILM SERVICE FOR EMPLOYEE RELATIONS—16 mm. Half hour program of selected short subjects tailored to fit industrial needs. No propaganda or training films. Designed to be shown in shops, offices, halls and recreation rooms during the lunch hour and rest periods. **United World Films, Inc., 445 Park Ave., New York, N.Y.**

FOOD OF THE WORLD—Time: 20 min. 16 mm. color, sound. About the baking industry. Quickly presents bread of many lands, followed by an excellent portrayal of American (wholesome) bread making mostly color from farm to blind racks. Available for showing in all methods except portions of some camera shots. Apply to: **Bakers of America Program, 20 North Wacker Drive, Chicago 6, Ill.**

GIVE US THIS DAY—THE STORY OF BREAD—2 reels, 16 mm. sound film, black and white. Approximate time for showing 15 min. History, development, making, scientific control, food value, drama and romance of bread. Includes the story of the new Enriched bread made with added vitamins and minerals, natural to white wheat. Apply to: **C. G. Harrel, Director, Dept. of Visual Education, American Society of Bakery Engineers, 900 Third Ave. S.E., Minneapolis, Minn.**; also **American Institute of Baking, 1135 Fullerton Ave., Chicago 14, Ill.**

HOPE'S HARVEST—Depicts situation of wheat from field to flour table. Filmed in the Kansas City Board of Trade Futures pit and each grain factor is active for a sequence in an educational movie which is the story of bread. Filmed in 16mm Farbe Kodachrome.

JUNGLE BREAD—Depicts the processes employed to make white bread by a primitive Dutch Guinea race. Expedition to produce this film sponsored by Van de Kamp's Bakeries, Los Angeles.

MORE POWER TO YOU—Sound and color film. Approximate time for showing 20 min. Produced by Cornell Films, Inc. for the National Bakery Division of the Great Atlantic & Pacific Tea Co. Shows interior scenes of the 410 year old Hook Mill at East Hampton, L.I. Story of the staff of life. Major emphasis has been placed on nutrition. Apply to **Y.M.C.A. Motion Picture Bureau, 347 Madison Ave., New York 17, N.Y.**, or **19 S. La Salle St., Chicago 3, Ill.**, or **351 Turk St., San Francisco 2, Cal.**, or **710 Burt Bldg., 1700 Patterson Ave., Dallas 1, Texas.**

OUR DAILY BREAD—"BKD THIS 19 AMERICA SERIES"—16 mm. Black and white, sound, time 15 min. Romance and history of bread. Traces the production from the wheat field to the modern bakery. Apply to **International Harvester, 180 North Michigan Ave., Chicago, Ill.**

PRETZEL TWISTING—Taken at Allentown, Pa., plant of the Pennsylvania Pretzel Co. and features a school for pretzel twisters. Part of the national campaign to promote the pretzel industry.

SOMETHING YOU DIDN'T EAT—16 mm., sound and technicolor. Produced by Walt Disney Productions (Great Institute, Inc., cooperated with the U.S. Dept. of Agriculture and Walt Disney in its production. Nutrition film. Apply to: **Office of Information, U.S. Dept. of Agriculture, Washington 25, D.C.**, also: **Associated Films, 19 South La Salle St., Chicago, Ill.**

THE STORY OF HUMAN ENERGY—16 mm., 18 min., sound. Followed by The Princeton Film Center, produced by Walter Lantz. Film tells of the part that heritage, the sunny grain, water, plant to the factory of modern industry, how the energy is portion is stored in various kinds of food by sunlight and shows what this process of nature means in creating good health. **Princeton Film Center, Princeton, N.J.**

THE STORY OF NON-FAT DRY MILK SOLIDS—Sound, with film. Deals with the use of non-fat milk solids, including a portion which is related to baking. Available: **American Dry Milk Institute, Inc., 221 N. La Salle St., Chicago 1, Ill.**

STEAMIN' HUNGRY—16 mm., sound film. Time: 20 min. By National Vitamin Foundation, Inc. Depicts the importance of vitamins in nutrition and how health is being improved by this knowledge. Available from **Merck & Co., Inc., Rahway, N.J.**

The following industrial films are all 16 mm., silent, black and white unless otherwise indicated. They may be obtained from C. G. Harrel, director, Dept. of Visual Education, American Society of Bakery Engineers, 900 Third Ave., S.E., Minneapolis, Minn.

ENZYMES—2 reels. Approximate time for showing 45 min. Portrays the action of enzymes with particular reference to the part they play in the production of bread during the fermentation processes.

THE HUMAN ELEMENT IN PIE CRUST MAKING—1 reel. Approximate time for showing, 18 min. Film shows the methods of making three different types of pie crusts from one dough by means of different handling. It shows the correct and incorrect procedures from the weighing of the flouded pies. Non-technical film.

IN THE DOUGH—2 reels. Approximate time for showing, 30 min. Sketches briefly the historical background of baking and then portrays the influence of the various ingredients contained in the bread formula (treating their effect upon quality products. Also touches upon the influence of various external factors which influence bread in its production.

MICROSCOPIC PLANT LIFE IN THE BAKERY—2 reels, approximate time for showing, 30 min. Portrays methods of propagation of mold; how mold spreads and the factors influencing and governing its growth from the spore stage. Methods of preventing mold growth are set forth with suggestions as to how the destruction of food—particularly bread—can be prevented. Part II of the film clearly describes yeast.

ORNAMENTING AND DECORATING FANCY CAKES—1 reel. Approximate time for showing, 18 min. This film shows how fancy cakes are decorated by the use of a tube and ends with the partial use of ornaments previously made. About half of the film is in color and for this reason special application for showing under specific conditions must be made. Non-technical film.

PRODUCTION OF 14 PIES—1 reel. Approximate time for showing, 15 min. A colored picture of operations in a large modern pie bakery turning out a large portion of small pie units. The film portrays the mechanics of handling the small pie units efficiently by means of modern machinery including packaging.

ROLLS IN THE MAKING—2 reels. Approximate time for showing, 15 min. Purpose of this film is to show the procedure for making up a variety of shapes of rolls. Film is of particular interest to those who desire to know more about the craftsmanship of baking and it is of particular interest to retail bakers. Included in the variation are a few of the refrigerated types.

THE STORY OF A LOAF OF BREAD—2 reels, 60 ft. Approximate time for showing, 17 min. Historical introduction. Illustrating the bread of the ancients followed by the production of our present loaf of bread in a modern bakery. Each step in the bread-making process is covered starting with the wheat going into the loaf and ending with the process of wrapping the baked loaf in a sanitary wrapper prior to delivery to the consumer. Non-technical film.

STORY OF MALT—2 reels. Approximate time for showing, 17 min. Educational film showing the manufacture of bakers' barley malt syrup from the time the ripe barley is cut in the field up to the final packaging in drums and barrels. Throughout the entire film the importance of laboratory control is depicted by means of showing how each step of the process is done, first in the laboratory on a small scale and then in the plant.

THE STORY OF YEAST—2 reels (being filmed).

THE STORY OF YEAST—2 reels. Approximate time for showing, 17 min. Non-technical visual presentation of this self contained, unicellular organism, from its beginning to its present day use. Film includes microscopic sequences, shows laboratory technique and commercial production of yeast, as well as its function in modern baking.

STREAMLINE DOUGHNUT PRODUCTION—1 reel, monochrome. Approximate time for showing, 15 min. Film visualizes how the baker met the production problem that arose with the amazing growth of doughnut sales. Practically every phase of the production activities is fully automatic.

The following films are 16 mm., sound, black and white, one reel. Approximate

showing time 10 min. They may be obtained from Encyclopaedia Britannica Films, Inc., 20 North Wacker Drive, Chicago 6, Ill.

BREAD—Produced in 1948. This film presents the story of bread from grain to finished loaf. Scenes showing cooling, slicing and wrapping the bread complete the picture.

PRINCIPLES OF BAKING—Produced in 1941. Instructional film rapidly covers the principles of baking involved in many batters and doughs. The narrator describes essential ingredients and their functions.

The following films may be obtained from General Mills, Inc., Film Library, 400 Second Ave. S., Minneapolis 1, Minn.

100 YEARS IN FOUR MINUTES—23 min., 16 mm., color, sound. Cake making. Available upon request are a 35 mm. film strip which reviews the highlights of the film, teachers' guide book, recipe booklets and question sheets for class or audience. Produced in 1945.

THE SCHOOL THAT LEARNED TO EAT—Time, 20 min.; 16 mm., color, sound. Film urges a wise selection of foods from each of the seven basic food groups every day. A General Mills, Inc., film produced jointly with the University of Georgia. Filmed in the cotton mill village of East Griffin, Ga., and records an actual experience in community-wide support of a nutrition program.

The following films may be obtained from Standard Brands, Inc., Fleischmann Div., 595 Madison Ave., New York 22, N.Y.

AMERICA'S BIGGEST BUSINESS — 35 mm., black and white, sound, slide film and record; time: 25 min. Designed especially for showings to high school, trade school and college audiences. Also particularly suitable for showings to entire personnel of individual bakeries. Part I—tells the story of the industry itself, what it is and how it operates. Part II—describes the opportunities it offers in office, sales or shop, together with a description of the educational background desired of young men and women who choose this trade and profession as a career.

BREAD BOUQUET—16 mm., sound motion; 1 reel, color; time: 20 min. A fascinating story of a single yeast cell's evolution from laboratory test tube, through the growing and processing steps in a modern yeast plant, to the millions of pounds of compressed yeast that supply the "bouquet" of good bread.

THE BUDDING OF YEAST CELLS—16 mm., silent; one 100-ft. reel. Approximate time for showing, 4 min. Shows the reproduction and growth of yeast from a single cell. Shown by time-lapse cinemacrographer, the growth and reproduction of yeast from a single cell. Life processes of cells extending over a period of eight hours are condensed into a showing time of two minutes.

THE COMMERCIAL PRODUCTION OF YEAST—16 mm., silent; three 400-ft. reels. Approximate time for showing, 45 min. Gives a clear picture of how yeast is produced for commercial purposes. Special emphasis is placed on the production, cleanliness and efficiency and the testing of each batch to insure strength and uniformity. The various steps in the commercial production of yeast by modern methods are thus shown.

ENZYMES IN DOUGH FERMENTATION—16 mm., silent; three 400-ft. reels. Approximate showing time, 45 min. Technical film. Illustrates and explains the action of the principal enzymes in bread making and stresses the importance of malt of a low regulated diastatic content in the production of uniform high quality bread. The film also points out how yeast raises and conditions the dough.

FROZEN CHERRIES—16 mm., sound motion; 1 reel, color; time: 11 min. A colorful story of "Frozen Cherries" from the orchard to preparation and use in bakery products.

GOLDEN GLORY—16 mm., sound motion; 1 reel, black and white; time: 30 min. This is an authentic biographical story of scientist Mark Carlton's search for and discovery of a rust-resistant strain of wheat that enabled American farmers to become the greatest wheat producers in the world. In conclusion the point is emphasized that Carlton's discovery made possible the plentitude of nutritious bread produced by American bakers, but the science of good nutrition—a properly balanced diet—is still the job of each individual.

HOLIDAY HAPPINESS—Color, sound motion picture; 16 mm.; 1 reel; time: 18 min. Produced under the technical direction of G. H. Kassell, manager of the bakery production service department, Fleischmann Division, Standard Brands, Inc. Covers every phase of cake decorating and icing for special occasions. Also shows how kilo transfers may be used for quick, inexpensive fancy designs. Suitable for consumer groups, Bakery Trade Schools and Bakery trade, only in those locations where the Fleischmann's School for Bakers has been conducted.

SALES WAYS—35 mm., sound, slide film and record; color; time: 15 min. This is an instructive exposition, in cartoon style of the reasons why good "sales ways" are as good for the bakery sales girl as they are for the bakery operator. The film is an unusually successful approach to selling bakery sales girls on better sales ways by talking from their own point of view and self interest.

SPRINGTIME IS EGG TIME—16 mm., sound motion; 1 reel, color; time: 12 min. This film features the "springtime" freshness in frozen eggs. A step-by-step tour through a modern breaking plant until the processed eggs are frozen in their containers. The film concludes with a parade of baked goods in which frozen eggs are an essentially important ingredient, and a review of the process by which Fleischmann's Frozen Eggs are produced.

THE STORY OF A NATIONWIDE SURVEY (bread survey)—35 mm., sound slide; black and white film and record; time: 15 min. Pictorial presentation of the facts and figures brought out by the extensive, nationwide survey, sponsored by the makers of Fleischmann's Yeast, to find out from the housewives of America what they are thinking and doing about bread. In conclusion, the film lists six objectives for bakers, based on the facts revealed in the survey.

The following industrial films may be obtained from Swift & Co., Bakery Dept., Union Stock Yards, Chicago 9, Ill.

THE INSIDE STORY OF CAKE BAKING—16 mm., sound, color film, 1,400 ft. Approximate time for showing: 39 min. Can see the inside of a cake while it bakes due to the development of a new process called micro-baking which is combined with micro-photography. Can see what happens to the structure and texture of a cake while it bakes—why certain ingredients combine to give superb results.

WHITE MAGIC—16 mm., black and white film; 1,450 ft. Approximate time for showing: 38 min. Tells of the quality of ingredients used by the baking industry and of the advantages to the housewife of using the baker for a source of baked items.

U.S. Larger Bakeries

American Bakeries Co., Inc., Atlanta, Ga.
American Stores, Philadelphia, Pa.
Becker's Bakery, Spartanburg, S.C.
Bell Bakeries, Inc., New York, N.Y.
Bluebird Baking Co., Dayton, Ohio.
Braun Baking Co., Pittsburgh, Pa.
Brockelman Bros., Inc., Fitchburg, Mass.
Brown-Greer Co., Inc., Knoxville, Tenn.
Burney Bros., Chicago, Ill.
Burry Biscuit Co., Elizabeth, N.J.
Campbell Taggart Associated Bakeries, Inc., Dallas, Texas.
Capital Bakers, Inc., Harrisburg, Pa.
Carr-Consolidated Biscuit Co., Wilkes-Barre, Pa.
Claussen's, H. H., Sons, Inc., Augusta, Ga.
Colonial Baking Co., Inc., Little Rock, Ark.
Columbia Baking Co., Atlanta, Ga.
Continental Baking Co., Inc., New York, N.Y.
Cushman's Sons, Inc., New York, N.Y.
Derst Baking Co., Atlanta, Ga.
Drake Bakeries, Inc., Brooklyn, N.Y.
Dugan Bros. of New York, Inc., Brooklyn, N.Y.
Duvernoy & Sons, Inc., New York, N.Y.
Ebinger, Brooklyn, N.Y.
Eddy Bakeries, Inc., Helena, Mont.
Fairfax Bread Co., San Francisco, Cal.
Federal Bakeries, Inc., Davenport, Iowa.
Fischtenberger, L. D., Bakeries, Inc., Bluefield, W. Va.
Freihofer, William, Baking Co., Inc., Philadelphia, Pa.
General Baking Co., New York, N.Y.
Gordon Baking Co., Inc., Detroit, Mich.
Great A. & P. Tea Co., New York, N.Y.
Grocers Baking Co., Louisville, Ky.
Hathaway Bakeries, Inc., Cambridge, Mass.
Helms Bakery, Los Angeles, Cal.
Holzbeierlein, M., & Sons, Inc., Washington, D.C.
Horn & Hardart Co., Inc., New York, N.Y.
Interstate Bakeries Corp., Kansas City, Mo.
Kilpatrick's Marvel Bakery, San Francisco, Cal.
Kroger Grocery & Baking Co., Cincinnati, Ohio.
Langendorf United Bakeries, Inc., San Francisco, Cal.
McGough Bakeries Corp., Birmingham, Ala.
Macklem Baking Co., Inc., Denver, Colo.
Manischewitz, B., Co., Jersey City, N.J.
Metz Bro. Baking Co., Sioux City, Iowa.
Michigan Bakeries, Inc., Grand Rapids, Mich.
Midland Bakeries Co., Peoria, Ill.
Miller-Parrott Baking Co., Terre Haute, Ind.
Mohican Co., New York, N.Y.
National Biscuit Co., New York, N.Y.
New System Bakery Corp., Columbus, Ohio.
Nissen, John J., Baking Co., Portland, Me.
Nolde Bros., Inc., Richmond, Va.
Omar, Inc., Omaha, Neb.
Petersen, P. F., Baking Co., Inc., Omaha, Neb.
Piper, H., Co., Chicago, Ill.
Purity Bakeries Corp., Chicago, Ill.
Quality Bakers of America, Inc., New York, N.Y.
Safeway Stores, Inc., San Francisco, Cal.
Schulze Baking Co., Chicago, Ill.
Smith's Bakery, Inc., Mobile, Ala.
Spaulding Bakeries, Inc., Binghamton, N.Y.
Stroehmann Bros. Co., Williamsport, Pa.
Sunshine Biscuits, Inc., Long Island, N.Y.
United Bakeries, Inc., Chicago, Ill.
United Biscuit Co. of America, Chicago, Ill.
Van De Kamp's Holland Dutch Bakeries, Inc., Los Angeles, Cal.
Vories Baking Co., Inc., New Orleans, La.
Wagner Baking Corp., Newark, N.J.
Ward Baking Co., New York, N.Y.
White Baking Co., Indianapolis, Ind.
Wolferman, Fred, Inc., Kansas City, Mo.
Zinsmaster Baking Co., Inc., Minneapolis, Minn.

ABA Presidents

Past and current presidents of the American Bakers Assn.: 1897-98, Charles Schnetter, Washington; 1899, L. J. Kolb, Philadelphia, Pa.; 1900, J. H. McKinney, St. Louis, Mo.; 1901, Robert Marton, Detroit, Mich.; 1902, F. H. Shepard, Boston, Mass.; 1903, W. M. Hogan, Minneapolis, Minn.; 1904, Mark Simon, Cincinnati, Ohio; 1905, D. Howard Smith, Kansas City, Mo.; 1906, Adolph Boettler, St. Louis, Mo.; 1907, H. B. Leary, Washington; 1908, Simon Hubig, Cincinnati, Ohio; 1909, W. M. Meek, Los Angeles, Cal.; 1910, Paul Schulze, Chicago, Ill.; 1911, George Chavez, Jamestown, N.Y.; 1912, F. H. Hohengarten, St. Louis, Mo.; 1913, Mark Bredin, Toronto, Can.; 1914, George Haffner, Ft. Wayne, Ind.; 1915, Jay Burns, Omaha, Neb.; 1916, S. F. McDonald, Memphis, Tenn.; 1917, Henry Stude, Houston, Texas; 1918, George S. Ward, New York, N.Y.; 1919, Gordon Smith, Mobile, Ala.; 1920, C. N. Power, Pueblo, Colo.; 1921, Wm. Campbell, Kansas City, Mo.; 1921, A. L. Taggart, Indianapolis, Ind.; 1922, W. H. Korn, Davenport, Iowa; 1923, R. K. Stritzinger, Norristown, Pa.; 1924-33, Lewis F. Bolser; 1933-34, L. J. Schumacher, Philadelphia, Pa.; 1934-36, Henry Stude, Chicago, Ill.; 1937-41, L. J. Schumaker, Philadelphia, Pa.; 1941, Ralph Ward, Brooklyn, N.Y.; 1942-46, J. T. McCarthy, Toledo, Ohio; 1947-48, C. P. Binner, Chicago, Ill.; 1948-49, Arthur Vos, Jr., Denver, Colo.; 1949, Eugene K. Quigg, Richmond, Ind.

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(Creator of the famous "Flying Red Horse")

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U. S. Farm Animal Population by States

Note: Preliminary report of livestock on farms (other animals not included) on Jan. 1, 1950 (000's omitted). Source: USDA

State and Division	Horses and Colts: Average 1939-48	1949	1950 (prelim.) No.	% of 1949	Cattle and Calves: Average 1939-48	1949	1950 (prelim.) No.	% of 1949
Maine	36	26	25	89	227	212	214	101
New Hampshire	14	11	10	91	124	116	116	100
Vermont	40	32	30	91	444	433	433	100
Massachusetts	19	14	13	93	181	177	176	101
Rhode Island	2	1	1	100	29	27	27	100
Connecticut	14	10	9	90	179	159	174	101
New York	247	167	148	87	2,130	2,182	2,224	102
New Jersey	24	11	11	87	213	212	224	102
Pennsylvania	223	130	119	85	1,809	1,744	1,780	102
North Atlantic	629	407	364	87	5,144	5,286	5,387	102
Ohio	333	163	152	88	2,138	2,124	2,148	101
Indiana	262	122	107	88	1,796	1,742	1,760	101
Illinois	439	212	186	95	3,111	3,006	3,159	105
Michigan	267	124	109	81	1,814	1,848	1,914	103
Wisconsin	436	268	224	83	3,782	3,766	3,804	101
Minnesota	531	306	284	87	3,587	3,244	3,274	101
Iowa	491	291	243	83	5,129	4,769	5,007	105
Missouri	390	294	247	88	2,974	2,959	3,107	106
North Dakota	299	164	153	93	1,816	1,538	1,512	99
South Dakota	214	185	170	87	2,170	2,558	2,479	97
Nebraska	414	202	236	96	3,163	3,877	3,920	101
Kansas	348	219	206	94	3,529	3,591	3,427	101
North Central	4,714	2,708	2,381	87	33,353	33,956	32,744	102
Delaware	12	8	7	92	58	60	61	102
Maryland	71	46	41	89	373	428	449	106
Virginia	163	138	128	93	998	1,061	1,101	104
West Virginia	99	90	86	95	541	548	555	103
North Carolina	87	82	82	97	679	687	716	109
South Carolina	33	23	21	91	340	348	367	106
Georgia	37	37	34	92	1,068	1,009	1,120	111
Florida	24	21	22	95	1,049	1,261	1,391	110
South Atlantic	515	453	423	94	5,177	5,464	5,566	107
Kentucky	229	192	177	97	1,409	1,282	1,404	101
Tennessee	344	123	129	96	1,367	1,396	1,182	107
Alabama	83	53	46	87	1,143	1,158	1,310	111
Mississippi	114	109	104	98	1,139	1,322	1,474	118
Arkansas	179	142	135	95	1,209	1,089	1,299	111
Louisiana	149	115	109	93	1,364	1,332	1,419	108
Oklahoma	331	231	213	93	2,745	2,481	2,652	107
Texas	586	387	362	91	8,271	8,404	8,658	103
South Central	1,779	1,367	1,286	93	18,634	18,964	20,026	106
Montana	233	139	133	96	1,581	1,901	1,723	91
Idaho	122	93	85	91	578	819	819	100
Wyoming	114	84	80	95	960	1,018	1,066	99
Colorado	193	116	112	89	1,672	1,809	1,766	97
New Mexico	114	84	81	96	1,276	1,176	1,156	98
Arizona	74	66	65	98	618	549	548	100
Utah	78	61	57	93	510	549	568	103
Nevada	38	36	35	97	420	511	512	102
Washington	109	62	54	87	588	568	545	102
Oregon	114	79	72	91	1,058	1,118	1,107	99
California	334	118	111	94	2,794	2,738	2,709	99
Western	1,585	958	900	94	13,897	13,491	13,241	98
United States	9,254	5,859	5,310	90	77,484	78,298	80,277	103

State and Division	Cows and Heifers: Average 1939-48	1949	1950 (prelim.) No.	% of 1949	Heifers 1-2 yrs. old kept for milk cows: Aver. 1939-48	1949	1950 (prel.)	Heifer calves kept for milk cows: Aver. 1939-48	1949	1950 (prel.)
Maine	132	121	121	100	34	34	35	37	36	36
New Hampshire	75	76	76	100	18	18	17	19	20	21
Vermont	306	283	284	96	60	48	41	63	62	66
Massachusetts	119	124	123	99	23	21	22	24	25	26
Rhode Island	22	21	21	100	3	2	2	3	3	3
Connecticut	127	115	119	103	15	20	21	22	24	26
New York	1,435	1,453	1,483	102	283	288	301	293	314	322
New Jersey	143	149	152	102	23	26	27	22	26	26
Pennsylvania	936	1,000	1,020	102	219	246	251	229	262	276
North Atlantic	3,314	3,258	3,406	101	601	733	742	711	768	801
Ohio	1,072	1,050	1,060	100	228	247	264	259	274	279
Indiana	792	745	728	98	187	186	196	183	172	187
Illinois	1,129	1,012	992	98	277	288	263	329	287	282
Michigan	1,009	1,008	1,016	101	238	266	260	266	273	280
Wisconsin	2,434	2,432	2,423	100	509	499	523	519	548	568
Minnesota	1,718	1,516	1,406	95	382	369	374	409	392	387
Iowa	1,448	1,194	1,182	99	306	272	276	326	296	320
Missouri	1,094	958	978	102	298	196	192	236	218	227
North Dakota	444	417	421	101	136	98	94	161	164	154
South Dakota	499	278	279	100	124	102	97	176	167	160
Nebraska	616	494	477	97	148	129	119	177	172	200
Kansas	752	622	638	101	158	149	134	192	169	166
North Central	13,972	13,831	13,776	100	2,891	2,767	2,734	3,129	3,149	3,290
Delaware	58	57	57	100	7	8	8	8	8	9
Maryland	216	234	245	104	44	52	50	47	55	59
Virginia	449	478	497	104	99	84	87	98	115	120
West Virginia	238	232	234	101	43	42	45	45	48	44
North Carolina	371	372	387	104	71	79	75	82	80	84
South Carolina	179	173	173	100	49	37	37	48	40	44
Georgia	386	379	400	107	106	107	113	119	132	141
Florida	129	148	152	103	42	38	38	53	78	96
South Atlantic	2,008	2,052	2,130	104	438	427	477	501	550	612
Kentucky	606	628	634	101	194	198	202	213	217	230
Tennessee	518	621	619	103	115	130	117	128	128	143
Alabama	453	413	430	104	130	111	126	160	160	183
Mississippi	575	527	545	103	126	115	121	148	154	171
Arkansas	486	437	444	102	156	160	140	155	130	166
Louisiana	263	218	231	104	91	74	75	199	107	124
Oklahoma	814	858	954	161	295	124	166	374	243	265
Texas	1,484	1,262	1,396	101	296	269	277	332	263	306
South Central	5,275	4,565	4,972	102	1,201	1,072	1,161	1,434	1,394	1,381
Montana	168	101	174	99	33	33	28	53	59	60
Idaho	244	227	222	98	58	56	58	75	74	82
Wyoming	58	59	59	100	75	76	50	57	15	15
Colorado	217	206	202	99	50	41	43	42	57	58
New Mexico	76	66	66	100	18	13	13	20	14	19
Arizona	49	46	47	105	15	15	12	14	13	13
Utah	114	112	116	103	29	27	27	34	30	40
Nevada	21	21	21	100	6	7	7	8	11	10
Washington	340	329	329	100	84	73	77	96	104	101
Oregon	268	258	260	101	63	64	56	72	77	82
California	414	883	929	104	218	236	217	231	252	243
Western	2,409	2,312	2,341	101	508	557	554	667	751	760
United States	26,175	24,458	24,635	101	5,799	5,496	5,616	6,342	6,616	7,030

U.S. Wheat Flour Distribution

Wheat flour production in 1947 was distributed as follows:

	% of total shipments	Production and distribution 1,000 sacks
Total production		282,388
Total shipments (including shipments by blenders)*	100.0	312,890
Shipments, end use specified:		
For family use†	25.3	79,740
For commercial use and for export‡	71.7	231,888
For industrial use	0.5	1,596
Shipments, end use not specified§	1.8	5,595

*Includes weight of ingredients other than flour used in prepared flour. Also includes an undetermined amount of duplication because of purchases of flour by flour mills and blenders for making blended and prepared flour. [illegible] million sacks of blended and prepared flour were shipped in 1947. Of this, [illegible] million sacks were shipped by flour mills and [illegible] million sacks were shipped by blenders. [illegible] Net exports and military procurement of wheat flour in 1947 amounted to [illegible] million sacks. An unknown part of these exports is included in the figure for shipments, end use not specified. [illegible] daily 24-hour milling capacity of more than 400 sacks.

Approximately one fourth of the total wheat flour production in 1945 was marketed for use and consumption in the home, according to the Bureau of the Census, U.S. Department of Commerce, which reached this conclusion as the result of a special survey.

The survey, covering 831 companies which operate 1,051 mills, was undertaken at the request of the milling industry to determine how wheat flour manufactured during 1945 was distributed according to uses or purposes.

Bakery flour, or flour produced and packed for commercial bakeries, institutions, hotels, restaurants and government agencies, except direct exports, accounted for 58% of the total; other commercial flour for the domestic market, industrial flour and flour for direct export, made up the remainder.

Wheat flour production in 1945 was distributed as follows, according to the bureau report:

Use	% of total	Production, 1,000 sacks
Home baking*	24.5	69,321
Bakery	58.8	166,820
Blenders	1.8	5,199
Semolina and durum	3.8	10,633
Export	6.5	18,316
Industrial	4.6	12,960
	100.00	283,278

*This item includes all-purpose flour, and prepared flour mixes, including flour packed in cartons, which was 1.4% of the total.

Average Value of Livestock

Source: USDA

	Horses	Milk cows	Sheep
1950	$45.70	$177.00	*$17.40
1949	53.00	185.00	*17.00
1948	55.50	164.00	*15.90
1947	59.20	145.00	*12.20
1946	67.40	112.00	9.00
1945	64.00	99.40	8.50
1944	75.90	102.00	8.72
1943	86.00	96.50	9.60
1942	66.70	71.69	8.01
1941	62.37	60.90	6.72
1940	77.30	67.20	6.31
1939	84.34	55.00	5.74
1938	90.90	54.44	6.13
1937	99.10	50.38	6.02
1936	94.82	49.27	5.90
1935	77.06	30.17	4.31

*Stock sheep.

	Mules	All cattle	Swine
1950	$99.40	$122.00	$27.10
1949	137.00	131.00	58.20
1948	133.00	118.00	42.80
1947	141.00	97.40	38.90
1946	173.00	78.20	33.90
1945	124.00	66.30	28.60
1944	113.00	68.70	17.50
1943	129.00	69.40	22.50
1942	107.83	56.00	16.43
1941	107.21	43.26	8.34
1940	110.03	40.80	7.79
1939	117.84	36.41	11.21
1938	123.00	36.64	11.20
1937	128.92	34.00	11.00
1936	126.36	34.00	13.73
1935	89.34	20.23	6.31

U.S. Farm Animal Population by States

(Continued from preceding page)

Note: Preliminary report of livestock on farms (other animals not included) on Jan. 1, 1950 (000's omitted). Source: USDA

State and Division	Hogs, Including Pigs 1950 (prelim.) Average 1939-43	1949	No.	% of 1949	Sheep and Lambs 1950 (prelim.) Average 1939-43	1949	No.	% of 1949	Chickens 1950 (prelim.) Average 1939-48	1949	No.	% of 1949	Turkeys 1950 (prelim.) Average 1939-43	1949	No.	% of 1949
Maine	60	95	93	89	28	21	23	105	2,427	2,651	2,956	112	11	8	10	113
New Hampshire	21	15	13	87	8	7	7	100	2,213	2,195	2,464	111	13	15	18	120
Vermont	38	32	31	96	18	12	12	100	1,648	962	1,078	112	27	28	28	112
Massachusetts	154	94	94	100	8	8	8	100	5,216	4,424	5,127	117	60	60	78	128
Rhode Island	9	10	9	90	3	3	3	100	435	459	494	111	5	3	5	159
Connecticut	34	36	30	83	8	8	8	100	3,294	3,327	3,111	108	30	34	38	112
New York	236	234	213	90	206	156	179	86	15,759	15,428	17,759	115	149	146	145	100
New Jersey	153	79	72	91	8	9	10	111	9,410	11,656	12,793	112	45	69	66	110
Pennsylvania	787	718	704	98	223	218	217	99	12,729	24,199	26,837	111	144	168	174	106
North Atlantic	1,494	1,348	1,187	95	717	479	482	96	62,946	66,710	73,918	112	491	526	555	106
Ohio	3,278	3,054	3,178	104	1,967	1,316	1,326	99	21,784	18,409	19,888	107	122	111	124	104
Indiana	4,168	4,195	4,831	115	745	475	484	96	17,463	17,314	18,559	112	83	85	78	90
Illinois	5,945	5,714	6,346	111	934	678	595	102	24,193	21,493	23,807	107	150	98	106	111
Michigan	895	820	927	113	461	424	425	99	14,123	10,817	12,816	118	106	117	128	109
Wisconsin	1,829	1,650	1,664	101	428	289	267	103	17,296	17,148	17,924	105	190	54	65	121
Minnesota	3,668	3,331	3,488	105	1,274	747	732	98	26,426	26,986	28,471	106	289	272	249	126
Iowa	10,811	10,850	11,926	110	3,597	899	949	95	26,366	32,189	34,264	106	383	256	362	128
Missouri	3,967	3,651	4,020	110	3,549	1,319	1,394	96	22,898	22,469	24,124	107	344	384	466	123
North Dakota	604	444	413	93	824	432	383	89	5,476	4,568	4,872	106	118	40	44	110
South Dakota	1,836	1,581	1,442	91	1,479	842	874	93	9,273	8,432	9,356	107	206	74	64	126
Nebraska	3,193	2,693	2,476	103	1,811	773	836	93	12,811	13,600	14,707	105	144	66	89	135
Kansas	1,539	1,183	1,151	100	1,127	882	786	119	17,262	14,714	15,688	106	184	124	170	136
North Central	41,437	39,029	42,066	108	14,215	8,759	8,437	97	229,847	234,437	253,540	107	2,332	1,623	1,995	119
Delaware	39	35	37	106	2	2	2	100	3,264	1,976	2,107	103	22	15	16	100
Maryland	353	257	276	105	65	45	47	104	5,645	4,224	4,368	103	74	50	59	103
Virginia	771	767	762	99	344	283	283	100	10,247	9,713	10,006	103	179	182	220	121
West Virginia	272	278	256	92	604	302	296	98	4,544	3,953	4,313	109	42	46	40	87
North Carolina	1,204	1,167	1,120	96	60	70	69	99	111,793	130,847	135,977	103	55	65	65	115
South Carolina	670	620	665	107	6	6	5	75	5,211	6,700	6,766	100	50	65	60	100
Georgia	1,724	1,604	1,706	106	18	14	13	93	8,525	8,873	8,786	104	46	47	47	100
Florida	651	664	619	93	20	13	13	93	3,812	3,801	3,942	101	37	32	36	113
South Atlantic	5,688	5,395	5,417	100	897	697	708	101	49,776	45,881	47,296	103	505	502	599	119
Kentucky	1,684	1,619	1,668	103	947	767	760	99	12,316	11,630	11,796	101	66	66	67	101
Tennessee	1,306	1,169	1,371	104	345	228	205	88	11,902	10,693	11,615	103	40	28	36	130
Alabama	1,209	1,124	1,225	109	24	23	22	96	8,875	7,888	8,178	104	41	41	43	105
Mississippi	1,185	875	885	99	81	100	104	104	8,127	7,191	7,549	105	34	28	29	104
Arkansas	1,351	918	1,0	110	99	58	51	88	9,170	8,109	8,985	111	49	27	30	111
Louisiana	842	734	731	101	244	127	140	110	5,874	6,000	6,015	99	35	14	15	106
Oklahoma	1,047	819	835	102	106	171	155	110	13,639	16,193	17,142	107	223	96	120	126
Texas	5,141	4,751	4,791	100	9,543	6,813	6,821	100	51,162	25,771	27,284	106	473	779	755	96
South Central	13,417	9,117	9,470	103	11,508	8,909	8,258	102	101,460	93,776	99,896	105	1,260	1,049	1,095	104
Montana	239	210	182	86	3,179	2,651	1,726	67	2,166	2,186	2,054	106	26	18	25	83
Idaho	278	237	209	91	1,893	1,198	1,063	91	3,537	3,102	3,208	105	52	49	49	100
Wyoming	91	88	85	100	1,221	1,210	1,041	100	991	941	749	103	16	24	21	75
Colorado	604	334	351	105	2,474	1,730	1,731	100	3,843	3,366	3,455	103	182	65	70	103
New Mexico	103	66	72	110	1,941	1,423	1,382	98	1,247	1,016	1,119	104	28	26	18	90
Arizona	48	27	24	89	614	402	383	97	720	677	650	102	18	13	13	110
Utah	114	96	88	96	1,898	1,493	1,332	91	2,874	3,078	3,427	111	178	112	109	97
Nevada	36	27	26	104	608	478	442	92	299	289	300	100	11	8	6	80
Washington	279	188	180	96	541	351	324	93	8,181	8,278	8,573	106	241	241	241	100
Oregon	237	186	166	89	1,204	722	649	91	3,748	3,215	3,584	104	436	378	370	98
California	853	837	879	105	2,687	1,884	1,709	90	17,874	16,512	15,416	114	1,111	943	927	105
Western	2,771	2,162	2,266	99	20,876	13,740	12,814	94	42,659	42,422	48,593	114	2,372	1,835	1,878	102
United States	61,424	57,118	60,424	106	46,112	31,954	30,797	97	486,339	448,676	491,130	107	7,016	5,149	6,159	119

Baltimore Ch. of Commerce

President, Philip C. McTolaire; vice president, Blanchard Randall; secretary-treasurer, Howard G. Haines; assistant treasurer, Karl F. Meyer. Executive committee: Charles Ryan, Charles F. Thomas; vice chairman, J. George Orbit; Arno W. Luken, Harry E. Morrison and Stanley J. Hugo.

Buffalo Corn Exchange

President, Gerald W. DuBart; vice president, Maitland D. Wyatt; treasurer, Theo. A. Wagner; executive secretary and traffic commissioner, Louis J. Dorr; assistant treasurer, Richard J. Murray.

Chicago Board of Trade

The Chicago Board of Trade was organized March 13, 1848. The first quarters were in a small room over a four store on South Water Street. The first president of the organization was Thomas Dyer. There were 82 members.

In 1849 the Illinois legislature passed a law for the establishment of boards of trade and chambers of commerce. In 1848 the Chicago Board of Trade was incorporated. Various quarters were utilized until April 28, 1885, when another Board of Trade Building was completed at a cost of $1,710,000, the trading room being one of the largest in the United States. Eventually the board outgrew those quarters, and a new building was erected on the same site at a cost of about $10,000,000. It was occupied June 3, 1930.

Carl E. Dustron is president; Sylvester J. Morris, first vice president; Earle M. Combs, Jr., second vice president; J. O. McClintock, executive vice president and Kenneth H. Harris, secretary.

Kansas City Board of Trade

President, H. P. Hills; first vice president, F. J. Pinflatrick; second vice president, Wayne K. Rood; executive vice president, W. E. Scott; treasurer, R. M. Simmons; assistant treasurer, F. A. Thompson; general secretary, Miss A. H. Karges; transportation assistant, J. E. Chartrand.

Minneapolis Grain Exchange

President, J. A. Bolton; first vice president, E. C. Woodworth; second vice president, A. G. Homberg; secretary, Ben Kennedy; assistant secretary, George Wilkins; treasurer, George H. Stymond. Board of directors, added director, F. H. Higgins, Don C. Mellen, A. M. Howard, Fred E. Hicks, J. F. Miller, R. G. Cargill, H. I. McMillan, G. W. P. Heffelfinger, Philip S. Light and Allen F. Moore.

Seattle Grain Exchange

President, Gordon T. Shaw; secretary, A. W. Anderson; manager, Sam Cruse.

Omaha Grain Exchange

President, H. H. Walker; first vice president, H. C. Christensen; second vice president, Frank Sorenson; treasurer, E. M. Bossler; secretary, F. P. Manchester.

St. Louis Merchants Exchange

President, L. C. Chase; first vice president, H. H. Vogel; second vice president, G. W. Kloeckle; secretary-treasurer, W. J. Krings; assistant secretary-treasurer, J. D. Fraser; treasurer, Eldred A. Clayre; C. G. Hasselstine, N. P. Nelson, A. W. Sax, B. A. Wooten, J. L. Young.

Winnipeg Grain Exchange

(Form Council changed to Board of Governors with chairman instead of president presiding.)

Chairman, H. H. Kinnear; vice chairman, Herbert Poole; Stewart A. Searle; president, S. L. Jones; secretary, J. T. Irving; treasurer, W. J. Hooker; H. L. Frost, Charles Kelly, J. H. Lindsay, George S. Mathieson, John McDowell, R. A. Powell, R. A. Pepler, W. E. Robertson, C. L. Simmonds, C. Gordon Smith, D. G. Thompson. Committee of Arbitration: N. L. Leach, D. H. Lockerbie, L. A. McGregor-Leslie, D. H. Roberts, H. L. Saunders, Clarence H. Smith and F. L. Taylor. Committee on Appeals: W. J. Cowlin, C. G. Greenman, G. E. Harper, S. H. McClure, Charles Reid, A. W. Sellers, Herbert Tuttle.

INFORMATION ABOUT THE GRAIN TRADE

DURING 1949 grain markets were influenced by further postwar readjustments in world supply and demand situations and important government decisions both in the U.S. and abroad. With U.S. production of grain again at near record levels and output about up to prewar averages in most of the nations which took large quantities of U.S. grain in the immediate postwar years, exports from the U.S. curved sharply downward in the latter half of 1949. The devaluation of foreign currencies, while it did not affect U.S. grain prices to a great extent, also contributed to a slackening in demand as importers sought to preserve their dollar supplies by taking more of their needs in nondollar markets.

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The International Wheat Agreement, signed by all principal exporting nations except Russia and Argentina and most of the major importers, was put into effect Aug. 1. The purpose of the plan is to guarantee import and export quotas to the participating nations at fixed maximum and minimum prices. Exports under this arrangement from the U.S. were restricted for several months because of confusion surrounding the subsidy payments to exporters, made necessary by the spread between price-supported wheat costs and the lower maximum price under the agreement. Even after the subsidy problem was ironed out, U.S. exports lagged behind expectations.

Grain prices did not fluctuate as widely during 1949 as in the previous year, but there were some rather severe dips and bulges. Cash wheat prices generally were more stable than futures quotations, with supplies rather tightly controlled by operation of the government price support program except during the peak of the harvests. Cash spring wheat did not decline too severely even during the heavy marketing period, but in the Southwest a more radical adjustment was made as the new crop came to market. The Chicago market was under pressure most of the fall of the year by excessive supplies of soft red wheat.

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A repetition of the 1948 February market break occurred in 1949, with corn dropping about 15¢ bu. and wheat 19¢ in two days. Heavy CCC buying of wheat for its export program provided the shot-in-the-arm needed to bolster prices. With the crop outlook favorable and a return to a world buyers' market apparent, prices tended toward easiness whenever price support buying lagged in the first half of the year. Later on, the loan and purchase agreement phase of price supporting was successful in keeping domestic prices up as farmers participated heavily in the program. Open market buying by the CCC all but disappeared in most markets in the fall of 1949, except in the Pacific Northwest.

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After considerable debate, Congress adopted a new price support program to replace the Aiken Act of 1948. The new act retains 90% supports on major commodities, including corn and wheat, through 1950, with sliding scale provisions to start later. Temporary storage structures were built by the government to handle the surplus of grains which were rapidly piling up, and loans were granted on grain stored on the ground during the harvest to implement the price support program. Early in 1950 government officials were showing more concern over the grain surplus and were attempting to get rid of some of it. This activity was not allowed to interfere with price levels, but it added a bearish note to market appraisals.

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Free private export trade was resumed on coarse grains in mid-summer, followed by resumption of free wheat trade Nov. 1, affecting exports to all world markets except occupied or U.S. protected areas. Exports of coarse grains in the 1949-50 crop year were well ahead of the previous crop year, but wheat shipments were lagging about 40% behind 1948-49. A large portion of all exports was being financed with U.S. funds through the Army and Economic Cooperation Administration.

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Wheat production, despite a smaller-than-expected yield in the Southwest, was the fourth largest in history, and the corn outturn was second only to 1948. Prospects for almost as large grain production in 1950 were considered good early in the year, even though acreage restrictions were put into effect.

World Wheat Carry-Over

Note: Four major exporting countries, on or about July 1, in bushels, 000,000's omitted. Source: USDA

	United States*	Canada	Argentina	Australia	Total
1940	207	130	110	85	632
1941	191	185	159	105	640
1942	84	124	121	34	363
1943	159	194	115	64	532
1944	279	214	171	50	814
1945	318	398	299	155	1,169
1946	418	436	288	295	1,737
1947	431	449	234	342	1,456
1948	346	517	291	75	1,179
1949	249	322	187	156	918
1950	251	128	264	63	706
1951	154	38	99	62	353
1952	42	43	61	52	248

Compiled as follows:

United States—Stocks on farms, in interior mills and elevators, commercial owned and stored for others in merchant mills and elevators, and Commodity Credit Corp. stocks not otherwise included.

Canada—Carry-over July 31, plus net exports and estimated retention of flour for feed.

Argentina—Carry-over on Dec. 31, plus exports and estimated domestic consumption, July 1 to Dec. 31.

Australia—Carry-over on Dec. 1, plus net exports and estimated domestic consumption, July 1 to Nov. 30.

*Includes United States wheat in Canada (includes small quantities of new wheat prior to 1937.

†Includes Canadian wheat in the United States.

‡Preliminary.

Contract Grades of Principal Grains

The following information has been prepared by the Commodity Exchange Authority of the U. S. Department of Agriculture, as a source of easy reference to the deliverable grades of grain, flaxseed, soybeans and millfeeds that may be tendered on futures contracts on the various markets licensed under the Commodity Exchange Act.

At the present time futures trading is provided for in one or more of the commodities—wheat, corn, oats, rye, barley, flaxseed and millfeeds—on 12 "contract markets": Board of Trade of the City of Chicago, Chicago Open Board of Trade, Board of Trade of Kansas City, Mo., Memphis Merchants Exchange Clearing Assn., Milwaukee Grain Exchange, Minneapolis Grain Exchange, Seattle Grain Exchange (during 1948 there was no futures trading in barley, and all futures trading was dormant at the Duluth Board of Trade, Los Angeles Grain Exchange, Portland Grain Exchange, San Francisco Grain Exchange, Merchants' Exchange of St. Louis, although not officially suspended).

As a matter of convenience the grades of grain deliverable on Winnipeg Grain Exchange contracts are also listed, although trading on that market is not subject to the provisions of the Commodity Exchange Act. Futures trading in wheat on Winnipeg Grain Exchange was suspended Sept. 16, 1942.

Although trading in grain and flaxseed contracts may be conducted for delivery in each calendar month, it is largely confined to contracts calling for delivery in May, July, September and December, which are called the "major" futures.

Trading in millfeed contracts is conducted for delivery in each month throughout the year.

The units of trading in futures contracts for grain, flaxseed and soybeans on all markets (including hards are lots of 5,000 bus (round lots) and 1,000 bus (job lots), or both, with these exceptions: the job lot unit of trade in oats and barley contracts at Chicago is 2,000 bus in order to successfully hedge carloads, and the unit of trading in contracts at Los Angeles and San Francisco is 100 tons.

The units of trading in millfeeds for future delivery are 125 tons in round lots and 10 tons in job lots.

Effective after May, 1938, by order of the Secretary of Agriculture under the Commodity Exchange Act dated Feb. 17, 1938, a period of seven business days is required during which contracts for future delivery in the current delivery month of wheat, corn, oats, rye, barley or flaxseed may be settled by delivery of the actual cash commodity after trading in such contracts has ceased.

Open Contracts

A futures contract is said to be "open" when it has been entered into but not yet fulfilled by delivery or otherwise offset. Total open contracts in any specified commodity, therefore, represent the contracts in each commodity which will have to be liquidated either before maturity by offset or a maturity by delivery.

The total of open contracts is obtained

U.S. Stocks of Wheat on April 1, 1949

Note: By quarters, in bushels, 000's omitted. **Source: USDA**

State—	In interior mills, elevators and warehouses, April 1 — Average 1938-47‡	1948	1949	Merchant mills April 1, 1949	Off farms total† April 1, 1949	Total all positions§ April 1, 1949
New England	287	128	*	15	314	314
New York	842	828	*	*	7,212	8,304
New Jersey	106	78	44	*	1,088	2,045
Pennsylvania	874	435	259	195	1,940	3,487
Ohio	1,449	1,697	1,326	*	2,999	10,774
Indiana	1,534	859	874	1,446	2,091	4,824
Illinois	1,275	1,261	1,346	1,741	3,414	7,017
Michigan	1,303	1,481	1,173	1,151	2,623	4,962
Wisconsin	266	75	79	*	7,751	8,842
Minnesota	4,545	1,924	2,421	4,458	17,695	24,883
Iowa	717	140	425	811	7,229	8,044
Missouri	1,546	411	989	3,964	27,327	26,044
North Dakota	18,071	6,276	29,599	1,432	21,422	41,294
South Dakota	4,847	3,513	4,440	183	2,925	17,197
Nebraska	3,778	1,584	4,463	2,257	18,971	21,859
Kansas	13,558	29,446	25,418	13,708	84,551	96,698
Delaware	29	19	22	13	54	103
Maryland	209	89	56	234	2,817	3,114
Virginia	311	111	84	184	387	1,492
West Virginia	32	9	12	18	24	327
North Carolina	111	105	155	295	794	1,121
South Carolina	56	8	16	181	195	321
Georgia	17	36	24	11	88	304
Kentucky	345	137	184	1,518	1,419	2,624
Tennessee	322	87	156	723	1,016	1,334
Alabama	47	11	*	—	98	174
Mississippi	132	17	—	.	33	60
Arkansas	18	4	9		9	162
Louisiana					479	479
Oklahoma	1,979	3,333	12,146	3,319	27,889	31,858
Texas	1,385	3,250	4,262	4,817	21,744	24,494
Montana	6,857	1,614	16,200	2,315	12,849	16,147
Idaho	3,519	2,848	8,287	1,219	7,482	13,872
Wyoming	84	154	273	111	878	1,033
Colorado	1,757	2,846	4,847	1,995	7,181	10,424
New Mexico	66	225	346	59	398	416
Arizona	75	22	65	44	134	194
Utah	874	1,580	1,678	1,117	2,157	3,171
Nevada	33	29	14		14	47
Washington	13,766	7,249	22,299	2,481	29,112	31,668
Oregon	5,868	1,735	8,906	1,359	13,201	14,211
California	2,744	700	1,217	741	1,078	2,097
Unallocated*			3,991	4,837	8,376	3,376
U. S.	103,566	72,124	145,811	63,239	377,672	574,187

*Unallocated—to avoid disclosing individual operations. †Includes, in addition to stocks in interior mills, elevators and warehouses and merchant mills, commercial stocks reported by Grain Branch, PMA, at terminals and an estimate of those owned by Commodity Credit Corp. which are in transit. ‡Short-time average. §Off farm total plus farm stocks.

U.S. Stocks of Wheat on July 1, 1949

Note: By quarters, in bushels, 000's omitted. **Source: USDA**

State—	In interior mills, elevators and warehouses, July 1 — Average 1938-47‡	1948	1949	Merchant mills July 1, 1949	Off farms total† July 1, 1949	Total all positions§ July 1, 1949
New England	196	114	*	*	714	714
New York	461	1,597	*	3,745	7,591	8,591
New Jersey	72	87	*	*	349	448
Pennsylvania	377	105	135	156	819	2,297
Ohio	841	370	*	*	1,517	3,148
Indiana	754	210	891	385	1,335	2,900
Illinois	401	525	718	430	7,603	8,800
Michigan	818	818	422	315	777	2,591
Wisconsin	103	76	*	*	8,470	10,440
Minnesota	2,818	667	1,972	2,364	16,223	17,520
Iowa	242	93	680	427	8,123	8,204
Missouri	557	149	758	4,185	21,511	23,199
North Dakota	11,187	7,226	14,700	1,389	29,888	38,478
South Dakota	3,341	1,510	4,100	119	4,324	11,243
Nebraska	1,958	1,051	4,158	2,012	11,640	18,715
Kansas	3,179	8,212	4,949	7,400	43,281	47,968
Delaware	18	2	*	*	11	21
Maryland	88	29	29	185	2,277	2,598
Virginia	179	51	53	130	175	691
West Virginia	19	10	8	12	22	312
North Carolina	21	24	14	112	126	479
South Carolina	11		9	41	59	119
Georgia	22	4	*	*	11	71
Kentucky	102	18	35	382	427	474
Tennessee	83	10	*	277	744	800
Alabama	27	3	*	*	13	15
Mississippi	218	2	14	*	14	23
Arkansas	20	1	8		8	12
Louisiana					1,874	1,423
Oklahoma	1,057	257	1,884	758	15,816	14,848
Texas	1,167	823	351	1,298	11,440	15,083
Montana	3,811	2,079	1,070	115	1,393	11,785
Idaho	2,555	886	3,306	267	3,628	5,881
Wyoming	48	67	*	*	210	480
Colorado	875	1,197	1,861	835	2,065	4,891
New Mexico	31	195	72	54	11	227
Arizona	19	3	*	*	19	16
Utah	473	715	706	317	2,247	2,690
Nevada	23	13	17		17	43
Washington	7,132	2,237	9,489	1,544	14,872	14,891
Oregon	2,871	110	1,506	228	7,221	4,435
California	841	259	427	728	1,374	1,490
Unallocated*			3,241	1,018	3,787	3,787
U. S.	51,131	38,215	58,219	34,696	235,674	281,373

*Unallocated—to avoid disclosing individual operations. †Includes, in addition to stocks in interior mills, elevators and warehouses and merchant mills, commercial stocks reported by Grain Branch, PMA, at terminals and an estimate of those owned by Commodity Credit Corp. which are in transit. ‡Short-time average. §Off farm total plus farm stocks.

each business day by a tabulation of reports made by exchange clearing members under authority of the Commodity Exchange Act. Where there was trading in both round and job lots, the totals of open contracts include both types.

Chicago

Differentials.—Unless otherwise specified, contracts for the sale of wheat, corn, soybeans, oats, rye, barley and malting barley shall be deemed to call for "contract" wheat, corn, soybeans, oats, rye, barley and malting barley, respectively. Upon such contracts, sellers, at their option, may deliver all or part of the . . . grades, at the differentials indicated, provided that lots of grain of any one grade must conform to the minimum lot requirements of Rule 291. (Rule 283, Board of Trade of the City of Chicago.)

Lots.—On future delivery contracts calling for 5,000 bus of grain, or multiples thereof, delivery shall be made in lots equal to the minimum quantity . . . specified (5,000 bus). On future delivery contracts calling for odd lots of grain, delivery shall be made in lots of 1,000 bus, with the exception of oats and barley, which shall be in 2,000 bu lots or multiples thereof. Each lot of grain delivered must be described on the delivery notice, and may be made up of various amounts of grain of the various authorized grades situated in various warehouses, provided that no lot shall contain less than 1,000 bus of any one grade in any one warehouse, except in the case of oats and barley where the minimum in any one warehouse shall be 2,000 bus of any one grade. On the last business day of the month only, members having grain bought in odd lots and sold in 5,000-bu lots may deliver odd lots on a 5,000-bu lot contract by attaching the odd lot notices firmly together and endorsing the last notice. (Rule 291.)

Variation Allowed.—Deliveries of grain in store may vary not more than 1% from the quantity contracted for, provided however, that no lot in any one warehouse shall contain less than 1,000 bus of any one grade, except in the case of oats and barley where the minimum shall be 2,000 bus. (Rule 293.)

Grades.—A contract for the sale of grain by grade shall be performed on the basis of the grades officially promulgated by the Secretary of Agriculture as conforming to United States standards at the time of the making of the contract. If no such United States grades shall have been officially promulgated, then such contract shall be performed on the basis of the grades established by the rules of the Division of Grain Inspection of the Department of Agriculture of the State of Illinois, in force at the time of the making of the contract. (Rule 295.)

Deliveries are made by registered warehouse receipts issued by warehouses which have been declared regular by the Board. The Board by regulation may prescribe the conditions upon which warehouses may be declared regular, and the conditions upon which warehouse receipts issued by regular warehouses are deliverable. (Rule 281.) Deliveries may also be made in cars on track during the last three business days of the month under the conditions specified in rule 282. Rule 297 provides for safeguarding the condition of grain in warehouses. Grain tendered for delivery must be insured against loss by fire for at least 85% of its value in accordance with rule 294.

Deliverable grades of wheat, corn, oats, rye, barley and soybeans:

WHEAT

Deliverable at premium, 1½¢ per bu.: No. 1 dark hard winter, No. 1 dark northern spring heavy.

Deliverable at premium, 1¢ per bu.: No. 1 hard winter, No. 1 red winter, No. 1 yellow hard winter, No. 1 northern spring heavy.

Deliverable at premium, ½¢ per bu.: No. 2 dark hard winter, No. 1 dark northern spring.

Deliverable at contract price: No. 2 hard winter, No. 2 red winter, No. 2 yellow hard winter, No. 1 northern spring.

BARLEY

Deliverable at contract price: No. 1 of Class 1, No. 2 of Class 1, No. 1 malting, No. 2 malting.

Deliverable at discount, 2¢ per bu.: No. 3 of Class 1. (Provided dockage shall not exceed 1%; allowance to be made by seller to buyer for dockage up to 2%.)

RYE

Deliverable at premium, 1¢ per bu.: No. 1 plump.

Deliverable at premium, 1½¢ per bu.: No. 2 plump.

Deliverable at premium, 1¢ per bu.: No. 1. Deliverable at contract price: No. 2.

CORN

Deliverable at premium, ½¢ per bu.: No. 1 white, No. 1 yellow, No. 2 white, No. 2 yellow.

Deliverable at contract price: No. 1 mixed, No. 2 mixed.

Deliverable at discount, 1¢ per bu.: No. 3 white, No. 3 yellow.

Deliverable at discount, 2½¢ per bu.: No. 3 mixed.

SOYBEANS

Deliverable at contract price: No. 1 yellow, No. 2 yellow.

Deliverable at discount, 4¢ per bu.: No. 3 yellow.

OATS

Special red oats are deliverable at the premiums and discounts shown for white oats of the same numerical grade. Bright oats shall carry no additional premium or discount.

Deliverable at premium, 1½¢ per bu.: No. 1 extra heavy.

Deliverable at premium, 1¢ per bu.: No. 2 extra heavy.

Deliverable at premium, 1¢ per bu.: No. 1 heavy, No. 3 extra heavy.

Deliverable at premium, 1¾¢ per bu.: No. 2 heavy.

Deliverable at premium, ½¢ per bu.: No. 1, No. 3 heavy.

Deliverable at contract price: No. 2.

Deliverable at discount, 1½¢ per bu.: No. 3 medium.

Deliverable at discount, 2½¢ per bu.: No. 3.

Chicago (Open Board)

Deliverable grades of wheat, corn, oats, rye and soybeans:

Contracts for wheat, corn, oats, rye and soybeans are traded in on the Chicago Open Board and the grades of each which may **be tendered on delivery are the same as for the Chicago Board of Trade, as pro-**vided in rule 116 of the Chicago Open Board of Trade, which follow:

Grade, Quality and Weight.—The grade, quality and weight of grain deliverable upon exchange contracts shall be determined according to the rules and regulations of the Board of Trade of the City of Chicago as they now exist, or as they may be modified hereafter. All such rules and regulations relative to grading, inspection, classification and weighing of grain and deliveries of other than contract grade at specified price differences, are hereby adopted and made applicable to contracts of members of this association. (Rule 115.)

Grain.—Wheat, corn, oats, rye, barley, flaxseed and soybeans. (Rule 16.)

Grades.—A contract for the sale of grain by grade shall be performed on the basis of the grades officially promulgated by the Secretary of Agriculture as conforming to the United States Standards at the time of making the contract. If no such grades have been officially promulgated, then such contract shall be performed on the basis of the grades established by the rules of the Division of Grain Inspection of the Department of the State of Illinois, in force at the time of the making of the contract. (Rule 113.)

Official U. S. Standards for soybeans as promulgated July 0, 1932, were made effective Sept. 2, 1932; revised, effective Sept. 1, 1941; amended, effective Sept. 1, 1943. Grade designations were not changed.

Unit of Delivery.—All deliveries of grain shall be in 1,000 bu. lots or multiples thereof except oats which shall be in 1,000- or 5,000-bu lots or multiples thereof but variations in quantity not in excess of 1% shall not vitiate tender or delivery, provided, however, that no lot in any one warehouse shall contain less than 1,000 bus of any one grade of wheat, corn, rye and soybeans or 1,000 or 5,000 bus of oats of any one grade. In all cases settlement shall be made on the basis of the exact quantity delivered. (Rule 508.) (See also Rule 402.)

Rules 501, 502, 512 and 514 cover date of delivery, mode of delivery, storage charges and insurance.

Rules 504, 505, 506 and 507 provide for delivery notice, method of delivery, hours of delivery and delivery by offsetting purchase and sale.

Rules 509, 510, and 511 relate to failure to deliver, claims, and failure to accept delivery.

Duluth

Deliverable grades of durum wheat, spring wheat, rye, barley and flaxseed:

DURUM WHEAT

Practically all transactions in wheat futures at Duluth are in durum wheat.

Deliverable at premium, 3¢ per bu: Nos. 1 and 2 hard amber durum wheat.

Deliverable at contract price: Nos. 1 and

U.S. Stocks of Wheat on Oct. 1, 1949

Note: By quarters, in bushels, 000's omitted. **Source: USDA**

State—	In interior mills, elevators and warehouses, Oct. 1: Average 1939-47	1948	1949	Merchant mills Oct. 1, 1949	Off farm total† Oct. 1, 1949	Total all positions‡ Oct. 1, 1949
New England	268	311	*	31	1,307	1,307
New York	1,343	7,028	*	16,852	47,324	52,863
New Jersey	124	126	132	*	1,897	3,863
Pennsylvania	1,844	480	642	1,490	8,279	16,359
Ohio	4,000	3,682	3,612	8,489	21,833	45,878
Indiana	2,474	5,145	3,342	2,996	9,663	18,517
Illinois	3,611	2,842	8,383	4,913	27,886	38,441
Michigan	5,392	1,086	1,847	3,731	7,678	26,788
Wisconsin	423	84	285	*	13,863	15,874
Minnesota	3,337	3,349	3,718	9,683	39,163	50,416
Iowa	1,250	1,218	*	*	11,813	13,820
Missouri	2,154	1,349	3,384	15,213	42,994	51,894
North Dakota	39,132	28,762	24,871	3,748	78,417	187,628
South Dakota	7,200	3,450	6,003	300	6,010	20,006
Nebraska	7,948	14,583	8,690	3,090	23,167	66,327
Kansas	67,110	64,012	63,017	19,000	115,062	206,442
Delaware	77	69	88	89	178	308
Maryland	181	189	268	879	7,414	8,381
Virginia	427	531	812	3,192	2,236	3,808
West Virginia	60	75	82	313	144	1,218
North Carolina	278	759	313	1,043	1,274	3,432
South Carolina	88	78	33	392	313	919
Georgia	53	87	54	198	249	881
Kentucky	1,158	315	787	4,600	4,535	8,895
Tennessee	777	229	727	1,737	3,893	4,947
Alabama	26	11	*	*	141	387
Mississippi	179	79	*	*	34	182
Arkansas	33	50	2	......	8	133
Louisiana					1,218	1,218
Oklahoma	8,038	13,792	33,118	8,347	35,657	81,844
Texas	10,131	14,040	27,432	12,271	53,889	78,032
Montana	11,089	18,543	11,450	3,909	34,443	48,891
Idaho	13,749	13,319	14,095	2,300	17,394	29,434
Wyoming	192	347	*	*	548	3,863
Colorado	5,723	4,635	8,387	3,694	12,179	24,934
New Mexico	194	188	1,713	282	3,961	3,447
Arizona	163	133	148	224	341	481
Utah	3,110	3,159	1,728	3,441	7,691	11,848
Nevada	135	73	125		128	478
Washington	55,491	44,549	59,791	4,150	67,335	67,568
Oregon	12,481	15,290	12,390	3,366	36,290	39,897
California	3,779	3,313	2,890	1,271	4,189	7,489
Unallocated*			10,133	3,791	8,727	8,727
U. S.	266,169	253,354	285,188	133,833	668,419	1,137,878

*Unallocated—to avoid disclosing individual operations. †Includes, in addition to stocks in interior mills, elevators and warehouses and merchant mills, commercial stocks reported by Grain Branch, PMA, at terminals and an estimate of those owned by Commodity Credit Corp. which are in transit. ‡Short-time average. §Off farm total plus farm stocks.

U.S. Stocks of Wheat on Jan. 1, 1950

Note: In bushels, 000's omitted. **Source: USDA**

State—	In interior mills, elevators and warehouses, Jan. 1: Average 1939-48	1949	1950	Merchant mills Jan. 1, 1950	Off farm total† Jan. 1, 1950	Total all positions‡ Jan. 1, 1950
New England	218	*	*	38	1,478	1,478
New York	1,551	*	*	8,142	23,887	27,611
New Jersey	108	49	121	*	1,570	7,097
Pennsylvania	765	380	439	1,266	6,637	15,167
Ohio	2,143	*	4,018	*	16,151	30,531
Indiana	1,822	1,173	1,792	1,219	2,776	10,314
Illinois	1,847	1,648	1,611	4,890	18,448	24,867
Michigan	1,872	2,131	1,946	5,341	4,491	21,548
Wisconsin	360	60	*	611	7,084	9,572
Minnesota	1,540	3,242	3,392	7,475	29,076	36,814
Iowa	1,630	3,003	661	1,001	7,877	9,005
Missouri	1,212	710	753	14,594	24,574	29,084
North Dakota	14,521	35,838	23,566	7,564	28,894	89,324
South Dakota	3,171	4,975	4,806	*	2,472	27,754
Nebraska	3,301	8,929	8,047	2,900	17,074	50,964
Kansas	33,231	74,343	47,532	21,496	111,364	154,801
Delaware	53	43	33	24	55	133
Maryland	724	67	136	636	4,218	6,181
Virginia	238	149	*	834	1,638	3,843
West Virginia	14	32	18	84	592	792
North Carolina	307	365	154	607	792	2,532
South Carolina	43	27	10	280	290	663
Georgia	38	18	18	103	123	128
Kentucky	759	213	364	1,089	4,474	4,784
Tennessee	347	170	*	1,091	2,587	3,300
Alabama	18	*	5	*	187	219
Mississippi	130	19	11	*	21	10
Arkansas	29	5	6		8	78
Louisiana					541	541
Oklahoma	6,501	14,449	21,654	7,118	50,837	61,674
Texas	7,490	11,826	20,029	13,248	67,913	89,228
Montana	18,207	16,724	11,643	2,630	16,773	46,313
Idaho	9,294	9,729	11,780	1,497	13,283	23,371
Wyoming	120	290	623	*	929	3,628
Colorado	2,263	2,044	8,283	2,283	11,130	22,394
New Mexico	117	349	1,410	*	1,891	3,144
Arizona	80	89	92	298	306	384
Utah	869	1,353	1,624	2,427	3,677	9,821
Nevada	41	15	48		48	237
Washington	26,094	24,841	27,843	3,769	35,244	42,183
Oregon	8,418	12,550	8,408	2,064	14,942	18,119
California	2,849	1,472	2,477	1,188	2,456	5,804
Unallocated*		8,629	6,681	7,797	7,885	7,885
U. S.	144,271	263,833	256,384	157,749	500,878	888,106

*Unallocated—to avoid disclosing individual operations. †Includes, in addition to stocks in interior mills, elevators and warehouses and merchant mills, commercial stocks reported by Grain Branch, PMA, at terminals and an estimate of those owned by Commodity Credit Corp. which are in transit. ‡Short-time average. §Off farm total plus farm stocks.

U.S. Wheat Supply and Distribution by Classes

Note: By crop years, in bushels, 000,000's omitted. **Source: USDA**

Year beginning July	1941	1942	1943	1944	1945	1946	1947	1948*	1949*
All wheat—									
Stocks, July 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Production	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Imports	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Supply	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Exports†	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Carry-over	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Domestic disappearance	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hard red winter—									
Stocks, July 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Production	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Supply	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Exports	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Carry-over	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Domestic disappearance	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Soft red winter—									
Stocks, July 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Production	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Supply	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Exports	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Carry-over	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Domestic disappearance	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Hard red spring—									
Stocks, July 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Production	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Imports	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Supply	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Exports	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Carry-over	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Domestic disappearance	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Durum—									
Stocks, July 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Production	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Imports	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Supply	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Exports	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Carry-over	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Domestic disappearance	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
White—									
Stocks, July 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Production	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Supply	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Exports	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Carry-over	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Domestic disappearance	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

*Subject to revision. †Includes flour made from U.S. wheat; also includes shipments to U.S. Territories.

2 amber durum wheat.

Deliverable at discount, 2c per bu: Nos. 1 and 2 amber mixed durum wheat, No. 3 hard amber durum.

Deliverable at discount, 3c per bu: Nos. 1 and 2 durum wheat.

Deliverable at discount, 4c per bu: Nos. 1 and 2 mixed durum wheat, No. 3 amber durum.

SPRING WHEAT

Deliverable at premium, 2c per bu: No. 1 heavy dark northern spring wheat.

Deliverable at premium, 1c per bu: No. 1 dark northern spring wheat, No. 1 heavy northern spring.

Deliverable at contract price: No. 1 northern spring wheat.

Deliverable at discount, 2c per bu: No. 2 dark northern spring wheat.

Deliverable at discount, 3c per bu: No. 2 northern spring wheat.

RYE

Deliverable at premium of 4c bu: No. 1 plump rye.

Deliverable at premium of 2½c bu: No. 2 plump rye.

Deliverable at premium of 1c bu: No. 1 rye.

Deliverable at contract price: No. 2 rye and No. 3 plump rye.

Deliverable at discount of 3c bu: No. 3 rye.

FEED BARLEY

Deliverable at premium, 2c per bu: No. 1 barley.

Deliverable at contract price: No. 2 barley.

Deliverable at discount, 4c per bu: No. 3 barley.

MALTING BARLEY

Deliverable at premium, 2c per bu: No. 1 malting barley.

Deliverable at contract price: No. 2 malting barley.

FLAXSEED

No. 1 flaxseed, contract grade. Any flaxseed, wherever grown, that shall be graded No. 1 shall be deliverable at the contract price.

No. 2 flaxseed, wherever grown, shall be deliverable at 3½c under the contract price.

Kansas City, Mo.

Deliveries on Future Contracts.—All warehouse receipts deliverable on contracts shall be for quantities or parcels in the aggregate as sold, accompanied by a memorandum of the property to be delivered, with the price of the same, together with the amount due therefor; but in no case shall the warehouse receipts of any one elevator which are tendered on a contract be in the aggregate for less than 1,000 bus, or in the case of grain sorghums 56,000 lbs, and if two or more different grades are tendered on a contract, in no case shall the warehouse receipts of any one elevator for any one grade be in the aggregate for less than 1,000 bus, or 56,000 lbs in the case of grain sorghums; provided, on all contracts for five thousand (5,000) bus of grain, or 280,000 lbs of grain sorghums, or any multiple thereof, deliveries shall be made in lots of five thousand (5,000) bus, or 280,000 lbs of grain sorghums; and on all contracts for one thousand (1,000) bus of grain (56,000 lbs of grain sorghums), or any multiple thereof, deliveries shall be made in lots of one thousand (1,000) bus (56,000 lbs of grain sorghums); a variation, however, of 2% in the quantity of grain delivered and that contracted for shall not vitiate a tender of delivery. Any excess or deficit within the above limits shall be settled for at the current market. (Rule 255.)

Standards.—In the event of a change in United States standards for grain, all contracts for future delivery made after the issuance of the order of the Secretary of Agriculture promulgating such change, and maturing after the effective date of such change, shall be made on the basis of the standards as changed; provided, that this shall not be construed to prevent the closing of trades made prior to the issuance of such order. (Rule 247.)

Quantities.—The delivery of track grain on regular contracts shall be for quantities or parcels in the aggregate as sold, provided, on all contracts for five thousand (5,000) bus, or in the case of grain sorghums 280,000 lbs, or multiples thereof, deliveries shall be made in lots of five thousand (5,000) bus (grain sorghums, 280,000 lbs), and on all contracts for one thousand (1,000) bus (grain sorghums, 56,000 lbs), or multiples thereof, deliveries shall be made in lots of one thousand (1,000) bus (grain sorghums, 56,000 lbs). A variation, however, of 12% between the quantity of the grain contracted for and the quantity of grain delivered as shown by the bill of lading weights, shall not vitiate a tender of delivery. (Rule 252.)

Fluctuations.—In trading in grain sorghums for future delivery, bids and offers at fractional prices less than ⅛c per 100 lbs shall not be permitted. (Resolution of Board of Directors, adopted Sept. 15, 1944.)

Deliverable grades of wheat, corn, grain sorghums and oats:

WHEAT

Deliverable at premium, 1c per bu: No. 1 dark hard wheat, No. 1 hard, No. 1 yellow hard and No. 1 red.

Deliverable at contract price: No. 2 dark hard wheat, No. 2 hard, No. 2 yellow hard, No. 2 red.

Deliverable at discount, 3c per bu: No. 3 dark hard wheat, No. 3 hard, No. 3 yellow hard, No. 3 red.

CORN

Deliverable at contract price: No. 1 mixed corn, No. 1 white, No. 1 yellow, No. 2 mixed, No. 2 white, No. 2 yellow.

Deliverable at discount, 2½c per bu: No. 3 mixed corn, No. 3 white, No. 3 yellow.

OATS

Deliverable at premium, ½c per bu: No. 1 white oats, No. 2 white, No. 1 red, No. 2 red, No. 1 special red, No. 2 special red.

Deliverable at contract price: No. 3 white oats, No. 3 red, No. 3 special red, No. 2 mixed.

Deliverable at discount, ½c per bu: No. 3 mixed oats.

GRAIN SORGHUMS

Deliverable at contract price: No. 1 milo, No. 1 bright milo, No. 1 yellow milo, No. 1 bright yellow milo, No. 1 kafir corn, No. 1

U.S. Grain Stocks on Farms

Note: Stocks on first of month specified, in bushels, 000's omitted.

Source: USDA

Wheat—	Jan.	April	July	Oct.
1950	[illegible]			
1949	[illegible]	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]	[illegible]
Corn—				
1950	[illegible]			
1949	[illegible]	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]	[illegible]
Oats—				
1950	[illegible]			
1949	[illegible]	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]	[illegible]

bright kafir corn, No. 1 white kafir corn, No. 1 bright white kafir corn, No. 1 red kafir corn, No. 1 bright red kafir corn, No. 1 white sorghums, No. 1 bright white sorghums, No. 1 yellow sorghums, No. 1 bright yellow sorghums, No. 2 milo, No. 2 bright milo, No. 2 yellow milo, No. 2 bright yellow milo, No. 2 kafir corn, No. 2 bright kafir corn, No. 2 white kafir corn, No. 2 bright white kafir corn, No. 2 red kafir corn, No. 2 bright red kafir corn, No. 2 white sorghums, No. 2 bright white sorghums, No. 2 yellow sorghums, No. 2 bright yellow sorghums.

Deliverable at discount, 1c per bu: No. 1 mixed sorghums, No. 1 bright mixed sorghums, No. 2 mixed sorghums, No. 2 bright mixed sorghums, and consisting of 75% or more of grain sorghums of the types white kafir, white durra, yellow milo, or red kafir, singly or combined, and not more than 10% of brown sorghums.

Deliverable at discount, 2c per bu: No. 3 mixed sorghums, No. 3 bright mixed sorghums, and consisting of 75% or more of grain sorghums of the types white kafir, white durra, yellow milo, or red kafir, singly or combined, and not more than 10% of brown sorghums.

Deliveries of the above grades of wheat, corn, oats and grain sorghums may be made in such proportions as may be convenient to the seller, subject, however, to the provisions of Rules 211 and 222 and Chapter XIX. (Rule 214, Rule 221, Rule 222 and Rule 223.)

MILLFEED FUTURES

Trading conducted in bran and shorts:

BRAN

Deliverable at contract price: "Contract bran" (wheat bran).

SHORTS

Deliverable at contract price: "Contract shorts" (gray shorts).

Millfeeds traded on the Board of Trade of Kansas City, Mo., for future delivery consist of "contract millfeeds" and a tender of any of the following by-products resulting from 80% extraction of flour from wheat shall be deemed valid: "Standard wheat bran," "pure wheat bran," "wheat mill run," "wheat mixed feed," "brown shorts," or "gray shorts"; provided, however, that by-products from durum wheat will not be a valid tender. The unit of trading for future delivery shall be 120 tons in round lots and 30 tons in job lots. (Rules 290, 291, 292.) To be a valid tender upon futures contracts cars of millfeed must contain 30 tons (or 600 sacks of 100 lb. net weight each when packed)—no more and no less. . . . (Rule 290(b).) Millfeed tendered upon contracts for future delivery must be packed in new 100 lb. net weight burlap sacks or cotton sacks (when packed), of dimensions not less than 40 in. by 18 in. for bran, and 45 in. by 18 in. for shorts, and must be cool, sound and sweet and conform to the description provided in those rules (Rules 290 and 291); provided, that no carload of millfeed shall be a valid tender unless the contents are packed exclusively in burlap sacks or in cotton sacks and provided further that when millfeed in cotton sacks is tendered such sacks shall be of 4.25 yard minimum weight; provided, further, that deliveries may be made in used burlap sacks or cotton sacks of the dimensions specified above at discounts under the contract price as determined by the Millfeed Committee, and it shall be the duty of the said Committee to announce not later than seven days prior to the first day of every delivery month the discounts which shall prevail during said month for millfeed packed in such containers, but no used sack shall be tendered on delivery unless it shall be sound and durable and shall have been cleaned and fumigated after its last use and the seller shall in every such case certify that the sacks have been cleaned and fumigated as herein required; and provided, further, that whenever it shall appear to the satisfaction of the Board of Directors that there is a marked shortage of new and used burlap and cotton bags and that paper sacks are currently being used to pack millfeed the Board may by resolution authorize deliveries of millfeed packed in paper sacks of such specification as the Board may prescribe, and in such event the Millfeed Committee so long as such resolution is in effect shall announce not later than seven days prior to the first day of every delivery month the discount which shall prevail during said month for millfeed packed in such paper containers. Carloads of millfeed to be valid for delivery must be of only one mill's manufacture, and the sacks must be properly tagged or labeled to show the name of the manufacturer and the description or analysis of the contents. (Rule 291.)

All contracts made for **Wheat Bran** shall be understood as for "contract bran," and on such contracts a tender of bran to be valid must conform to the following description: Wheat bran shall consist of the coarse outer covering of the wheat kernel as separated from cleaned and scoured wheat in the usual process of commercial milling and may include ground wheat screenings and scourings mill run but not to exceed 9.5%. Durum wheat bran shall not be a valid tender for delivery. (Rule 290.)

All contracts for **Gray Shorts** shall be understood as for "contract shorts," and on such contracts a tender of shorts to be valid must conform to the following description: Gray shorts shall consist of fine particles of the outer bran, the inner bran or bee-wing bran, the germ, and the offal or throus materials obtained from the "tail of the mill." This product must be obtained in the usual process of commercial milling of wheat and shall not contain more than 4.5% crude fiber. It may contain ground wheat screenings and scourings mill run but not to exceed 4.5%. (Rule 291.)

Los Angeles

Deliverable grades of barley and grain sorghums:

All sales or purchases of any commodity made between members of the Los Angeles Grain Exchange for future delivery for 100-ton lots shall be known as "time contracts."

BARLEY

Deliverable at contract price: No. 2 western barley (46 lb.) or better; deliverable at discount 2½c bu.: No. 3 western (45 lb. or better); deliverable at discount 4½c bu.: No. 3 western (44 lb. or better).

GRAIN SORGHUMS

Deliverable at contract price: No. 2 yellow milo, subclass (A).

"Deliveries of all grain sold on time contracts shall be made in public warehouses in the State of California, and shall be made by tender of regular negotiable warehouse receipt or receipts, sufficient to fill the contract covering the grain in same warehouse, which receipt or receipts shall be issued by such warehouses as are approved by the State Public Utilities Commission, or receipts issued under the U.S. Warehouse Act. Warehouse receipts covering bulk grain shall be applicable only when issued by warehouses or elevators designated by the board of directors; and such receipts shall have endorsed thereon the grade of grain to be delivered. Receipts covering sacked grain shall have al-

U.S. Wheat Supply and Distribution

Note: By crop years, in bushels, 000's omitted. Source: USDA

SUPPLY

Year beginning July	Farm	Interior mill, elevator and warehouse	Terminal market	Merchant mill	CCC wheat & transit*	Total	New crop	Imports†	Total supply
	——— Old crop carry-over July 1 ———								
1949‡	57,172	75,519	129,114	72,081	3,787	307,347	1,146,463	.....	1,453,810
1948	54,811	38,048	34,685	34,300	2,530	195,991	1,313,534	1,417	1,511,942
1947	46,477	16,118	8,128	24,101	600	83,837	1,367,186	136	1,451,179
1946	41,606	8,374	29,817	13,626	7,542	100,960	1,155,945	47	1,262,191
1945	57,702	43,129	67,194	58,433	23,790	279,189	1,108,224	1,886	1,388,492
1944	102,823	36,533	85,912	47,296	42,581	315,064	1,060,111	42,347	1,418,013
1943	169,574	163,604	162,151	104,378	18,990	618,697	843,813	136,309	1,598,819
1942	143,722	142,066	224,441	96,837	4,409	631,175	969,381	1,057	1,601,513
1941	86,673	73,768	112,473	81,088	.....	384,733	942,970	3,084	1,330,541
1940	78,573	31,212	84,187	80,854	.....	279,722	814,646	3,533	1,097,890
1939	44,816	36,842	64,102	81,094	.....	250,913	741,210	263	991,434

DISTRIBUTION†

Year beginning July	Processed for food§	Seed	Industrial**	Feed††	Total	Wheat	Flour‡‡	Other products	Total‡‡	Shipments§§	Total disappearance¶¶
	—Continental U. S. disappearance—					——— Exports ———					
1948‡	479,271	81,237	79	128,504	700,291	232,412	93,543	1,563	327,518	3,338	1,203,493
1947	484,831	90,744	658	187,721	763,708	307,868	134,749	6,666	349,774	4,222	1,255,136
1946	477,241	88,494	44	181,712	744,108	224,812	109,880	3,482	337,189	4,145	1,169,576
1945	467,054	81,911	20,975	304,532	874,365	228,151	88,783	4,736	319,654	4,906	1,199,314
1944	477,668	80,273	83,280	286,369	926,762	18,041	27,542	2,183	48,777	4,085	1,108,823
1943	491,606	77,351	107,227	497,848	1,174,334	11,843	28,219	2,077	42,539	3,692	1,282,415
1942	502,414	65,487	54,242	296,407	920,644	8,103	23,926	1,476	30,816	3,361	943,318
1941	471,064	62,480	1,614	116,348	651,536	12,632	14,464	343	27,438	4,061	698,181
1940	476,266	74,531	101	122,744	673,704	10,814	22,498	.....	33,419	3,834	713,117
1939	478,352	72,946	99	115,941	683,426	23,636	23,233	.....	44,988	3,471	711,787

Foreign trade figures from reports of the Department of Commerce and Department of Agriculture. *Includes CCC stocks stored in steel and wood bins 1942-45. †Imports include full-duty wheat, wheat imported for feed and dutiable flour in terms of wheat. They exclude wheat imported for milling in bond and export as flour, also flour free for export, which for 1939-40 was 214,000 bu. and in 1940-41 was 174,000 bu. ‡Supply data preliminary; distribution data estimated. †Includes flour and other products in terms of wheat. §Food use by civilians and military services eating out of civilian supplies, is computed as follows: Total grind less exports and shipments of flour and other wheat products, less military procurement, plus estimated breakfast food produced outside the flour milling industry, plus dutiable imports of flour. **Quantity of wheat ground into granular flour for alcohol production. ††Balancing item; roughly approximates total used as feed, including that used in commercial feeds as well as that fed on farms. ‡‡Exports are of wheat and of flour made wholly of U.S. wheat. Exports as here used, in addition to commercial exports, include USDA flour procurement as distinct from USDA deliveries for export. They exclude exports under the Army Civilian Supply Program. §§Shipments are to Alaska, Hawaii, Puerto Rico and Virgin Islands; partly estimated. For the war years, USDA shipments for stockpiling in the territories have been added to reported Census totals. ¶¶Total disappearance plus year-end carry-over account for total supply.

Wheat Crop Distribution in Canada

Note: By crop years, August 1 to July 31, in bushels, 000's omitted. Source: Dominion Bureau of Statistics.

	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49*
Production	556,684	284,460	416,635	318,512	413,725	341,758	393,345
Carry-over of wheat at July 31	423,747	594,626	356,521	258,073	73,600	86,141	77,719
Imports, wheat and wheat flour	3	473	464	70	16	825	289
Available for distribution	980,434	879,559	773,620	576,655	487,341	428,724	471,346
Domestic use—							
Human consumption	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	42,596
Animal feed and waste	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Seed requirements	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Industrial use (alcohol)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100	.....
Remainder for export and carry-over	825,438	699,118	621,438	418,744	326,601	272,687	331,044
Exports, wheat & wheat flour	214,701	343,722	342,946	343,188	239,421	194,982	232,329

*Preliminary.

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tached thereto a Federation Inspection Certificate or a Los Angeles Grain Exchange Certificate of sample inspection of each lot tendered, giving the grade, lot number, quantity and date of inspection, which must be not more than fifteen (15) days prior to date of tender, and must bear the name and location of the warehouse in which the grain is stored, the name of the warehouseman or federal inspector who drew the sample and the date on which sample was drawn. All accrued storage charges, if any, and storage charges up to and including May 31, next, but in no case to be less than ten (10) days next, following date of tender, shall be paid or allowed by the seller. The all railroad freight rates prevailing at the time of delivery and for a period of not less than ten (10) days after date of tender from point of delivery to Los Angeles shall be deducted by the seller. All loading out charges shall be paid or allowed by the seller. No delivery shall be made on a time contract except during the contract month." (Rule 14, Sec. 12.)

Memphis

Deliverable grades of soybean meal and discounts per ton, adopted Nov. 4, 1948, effective for July, 1949, and subsequent futures.

Grade	Protein %	Discounts
Old process soybean meal	40.50 to 41.50†	0*
Solvent soybean meal	43.50 to 44.50†	0*
Not prime in color, odor or texture	Same as above	—**

*Contract price.

**Discount determined by Grades Committee. (Rule 202.)

†Minimum percentages: Old process soybean meal—protein 40.5%, fat 5.5%, nitrogen-free extract 28%; solvent soybean meal—protein 43.5%, fat 0.5%, nitrogen-free extract 28%. Maximum percentages: Old process soybean meal—fiber 7%, moisture 12.5%; solvent soybean meal—fiber 7%, moisture 12.5%.

"Description—Soybean meal to be traded in on this market and deliverable against sales contracts shall be 41% protein old process soybean meal or 44% protein solvent soybean meal as is described in the Trading Rules of the National Soybean Processors Assn.

"Official Grades—41% protein soybean meal must be identical with what is known as old process soybean meal and 44% protein soybean meal must be identical with what is known as solvent soybean meal and shall meet the following standard specifications:

41% Protein Old Process Soybean Meal

Protein	Minimum 41.0%
Fat	Minimum 5.5%
Fiber	Maximum 7.0%
N.F.E.	Minimum 29.0%
Moisture	Maximum 12.5%

44% Protein Solvent Soybean Meal

Protein	Minimum 44.0%
Fat	Minimum 0.5%
Fiber	Maximum 7.0%
N.F.E.	Minimum 29.0%
Moisture	Maximum 12.5%

A tolerance of one half of 1% of protein, and/or one fourth of 1% of weight will be permitted without addition or deduction and soybean meal filling these requirements shall be delivered at par.

"Good Delivery—The standard of quality shall be soybean meal of fair merchantable quality based on the season's production and conforming to standard definitions and standard specifications of the National Soybean Processors Assn., which are herewith made a part of these Trading Rules and which specifications are subject to modification from season to season as conditions may warrant, upon recommendation of the Technical Committee of the National Soybean Processors Assn.

"A tender of soybean meal for delivery not prime in color, odor or texture, but of quality suitable for feeding purposes (deficiency in protein excepted) shall be a good delivery at an allowance which shall be determined by the Grades Committee. In no instance, however, may such soybean meal be accepted for delivery if in the opinion of such Committee the commercial differences exceed 4% of the settlement price.

"A tender of soybean meal for delivery carrying in weight more than 1% shall not be accepted, but if the variation is more than one fourth of 1%, and not more than 1%, it shall be accepted for delivery and the exact quantity invoiced at the settlement price without prejudice to the contract." (Rule 202.)

"Packages—Soybean meal shall be packed 100 lb. net in uniform bags of not less than:

(a) New 8 oz. burlap, or
(b) Reconditioned 10 oz. burlap, or
(c) New 36"—4 yard cotton or equivalent strength, or
(d) Reconditioned 36"—3½ yard cotton or heavier.

Bags to be tagged with weight tags only, or stenciled "100 lb. net" with manufacturer's or seller's name and address." (Rule 203.)

Rules 118, 204, 206, 208, 214 and 216 relate to time and place of delivery, seller's warranty of weights, claims for short weight, allowances, delivery in cars, and delivery in warehouses.

The contract provides for the delivery of "204,800 lb., in 2,048 100-lb. net weight bags, of either 41% Protein Old Process Soybean Meal or 44% Protein Solvent Soybean Meal at seller's option produced within the United States of America . . . deliverable at seller's option at any authorized delivery point as provided in Rule 212, f.o.b. Memphis, Tennessee, Ill., freight rates, as defined in Rule 111 . . . The soybean meal dealt with herein or delivered hereunder shall be of, or within the grades which are de-

Canadian Wheat Carry-Over

Note: In bushels, 000's omitted. Source: Dominion Bureau of Statistics.

	Production	Carry-over
1949*	347,494	99,847
1948	393,341	77,710
1947	336,754	87,367
1946	426,731	73,600
1945	393,913	255,872
1944	435,535	355,179
1943	283,865	394,876
1942	381,684	473,750
1941	592,676	480,139
1940	551,390	308,472
1939	526,423	192,916
1938	388,618	24,539
1937	193,418	37,848
1936	216,749	137,362
1935	277,339	113,652
1934	275,849	262,891
1933	281,849	217,167
1932	441,061	193,841
1931	521,825	158,197
1930	420,673	126,582
1929	394,129	137,239
1928	388,724	91,184
1927	479,848	55,621
1926	407,136	46,139
1925	395,471	30,741
1924	281,897	48,116

*Preliminary.

U.S. Wheat Stocks by Classes

Note: July 1, 1948 and 1949, in bushels, 000's omitted. Source: USDA

Class	Aver (1935-37)	1948	1949
Hard red winter	16,174	16,249	19,782
Soft red winter	17,273	14,899	13,285
Hard red spring	16,725	16,992	47,897
Durum	10,281	8,116	11,463
White	18,637	7,940	14,509
Totals	141,114	121,156	158,717

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clared to be a good delivery under the Rules . . ." (Rule 116.)

"Delivery Points—Designated delivery points for soybean meal traded in for future delivery on the exchange are: Bloomington, Ill.; Champaign, Ill.; Decatur, Ill.; Gibson City, Ill.; Peoria, Ill.; Springfield, Ill.; Taylorville, Ill. All deliveries at the above points shall be f.o.b. basis, Decatur, Ill., freight rates to final destination as defined in Rule 111." (Rule 211.)

"Other Delivery Points—The Board may change the designated delivery points from time to time, and such changes shall become regular 10 days after their announcement, and shall apply to all contracts made on and after the date on which such changes become effective." (Rule 111.)

Milwaukee

Deliverable grades of wheat, corn, oats and rye:

Deliverable Grades.—Deliverable grades of commodities on this exchange are the same as those deliverable on the Chicago Board of Trade. Futures trading on the Milwaukee Grain Exchange "contemplates delivery of Chicago warehouse receipts in fulfillment of futures contracts."*

Contracts for the purchase or sale of commodity futures are "deemed to be for the standard of quality or grade as established by the United States Department of Agriculture under the provisions of the Grain Standards Act' where such grades are established. The establishment of new grades or changes in established grades from time to time affect the validity of pending contracts. Commodities officially graded under the provisions of rules in force at the time of delivery are deemed to be valid tender on futures contracts." (Rule 105, sec. 7.)

Deliveries by Warehouse Receipt.—All deliveries of futures commodities are "made in warehouse receipts for grain in warehouses approved or declared regular by the Board of Directors . . . Deliveries are made in lots of 1,000 or 5,000 bus with a variation of 1% permitted. Grain in cars, however, may be tendered on contracts under specified conditions. Warehouse receipts of licensed public elevators whose receipts are deliverable to fulfillment of futures contracts "under the rules of other regularly organized exchanges, and which prior to the making of the contract have been approved by the Board of Directors of the Association," are deliverable on futures contracts of this exchange. Such organized exchanges must be specified at the time the contracts are made. The contract grades provided by "each regularly organized exchange" are "the grades deliverable when warehouse receipts of warehouses which are regular under the rules of each regularly organized exchange are deliverable in fulfillment of future contracts. (Rule 105, sec. 1.) The Chicago Board of Trade is the only exchange approved under this provision of the rules. Any such approval may be revoked at any time. (Rule 102, sect. 1-6.)

*Letter from H. A. Plumb, secretary of the Milwaukee Grain & Stock Exchange, to the Commodity Exchange Administration, Nov. 16, 1938.

WHEAT

Deliverable at premium, 1½c per bu: No. 1 dark northern spring heavy, No. 1 dark hard winter.

Deliverable at premium, 1c per bu: No. 1 northern spring heavy, No. 1 hard winter, No. 1 yellow hard winter and No. 1 red winter.

Deliverable at premium, ½c per bu: No. 1 dark northern spring and No. 1 dark hard winter.

Deliverable at contract price: No. 1 northern spring, No. 2 hard winter, No. 1 yellow hard winter and No. 2 red winter.

CORN

Deliverable at premium, 1½c per bu: No. 1 white, No. 1 yellow, No. 1 white and No. 1 yellow.

Deliverable at contract price: No. 1 mixed, No. 1 mixed.

Deliverable at discount, 3c per bu: No. 2 white, No. 1 yellow.

Deliverable at discount, 1½c per bu: No. 2 mixed.

RYE

Deliverable at premium, 3c per bu: No. 1 prime.

Deliverable at premium, 1½c bu: No. 1 prime.

Deliverable at premium, 1c bu: No. 1 rye.

Deliverable at contract price: No. 1.

OATS*

Deliverable at premium, 1½c per bu.: No. 1 extra heavy white, No. 1 extra heavy special red.

Deliverable at premium, 1c per bu.: No. 1 extra heavy white, No. 1 extra heavy special red.

Deliverable at premium, ½c per bu.: No. 1 extra heavy white, No. 1 extra heavy special

Carryover Stocks of Canadian Grains

Note: In Canada and U.S. at close of crop years, in bushels. Source: Dominion Bureau of Statistics.

	Wheat	Oats	Barley	Flaxseed	Rye
1949*	94,715,141	59,072,479	33,943,575	10,719,699	11,007,551
1948	77,746,419	47,691,018	31,448,600	1,971,228	903,746
1947	87,366,857	60,960,061	39,113,331	799,039	788,171
1946	72,806,209	77,482,525	39,937,688	1,849,216	988,160
1945	324,072,850	93,366,163	38,919,101	2,955,111	2,095,083
1944	356,521,679	196,843,330	46,871,979	5,669,125	6,176,061
1943	384,626,619	149,324,136	88,263,797	3,748,121	11,277,068
1942	423,703,207	39,007,160	10,831,403	1,097,060	1,313,309
1941	466,139,311	41,363,379	10,642,658	630,313	4,919,133
1940	396,473,461	46,931,930	13,863,876	583,307	5,361,861
1939	193,916,653	46,837,156	13,894,100	518,833	5,081,634
1938	34,536,959	19,496,653	6,830,934	319,697	1,090,576
1937	37,846,839	16,386,843	4,796,313	464,907	408,864
1936	137,382,386	46,379,806	16,334,324	369,307	3,896,953
1935	213,843,116	36,476,763	6,018,797	113,979	3,168,716
1934	293,803,377	31,669,497	11,993,890	671,988	6,860,897
1933	317,867,666	43,644,758	11,388,383	1,379,875	8,606,488
1932	235,941,347	39,848,319	7,196,866	1,391,308	5,766,834

*Preliminary.

U.S. Supply and Distribution of Rye by Quarters

Note: By seasons and quarters, in bushels, 000's omitted. **Source: USDA**

Year and quarter	Stocks at beginning of period: Farm	Commercial	Interior mills	Total	Production	Imported	Total supply	Disappearance: Used for alcohol	Milled for flour*	Feed	Seed	Exported	Total
1946-47:													
July-Sept.	1,150	512	895	2,557	14,879	43	17,479	180	1,304	1,881	2,153	79	5,597
Oct.-Dec.	9,819	1,118	1,213	12,150	----	320	12,470	987	1,179	1,079	2,153	120	5,484
Jan.-March	6,989	1,478	1,028	8,504	----	457	8,961	1,173	1,185	841	781	----	3,979
April-June	1,766	1,138	1,344	4,243	----	219	4,462	1,154	818	445	134	165	3,916
Season	1,150	512	895	2,557	14,879	1,041	18,097	4,235	4,487	4,246	4,487	379	18,234
1947-48:													
July-Sept.	499	1,014	712	2,224	16,976	19	19,219	1,275	1,133	1,474	1,556	186	6,724
Oct.-Dec.	12,475	1,851	1,128	15,457	----	11	15,468	441	1,267	1,764	2,133	1,260	7,065
Jan.-March	7,290	1,472	1,142	9,904	----	9	9,913	1,742	1,349	1,746	271	738	6,286
April-June	1,416	1,071	1,179	3,666	----	9	3,675	1,368	1,217	1,121	132	137	4,975
Season	499	1,014	712	2,224	16,976	41	19,262	5,226	4,965	6,105	4,976	2,141	25,413
1948-49:													
July-Sept.	1,710	551	1,122	3,383	18,448	410	22,242	1,412	1,119	1,289	1,082	8	6,911
Oct.-Dec.	14,241	1,459	1,240	17,441	----	1,249	18,571	2,519	1,294	1,391	1,981	159	8,341
Jan.-March	8,719	1,749	1,891	12,299	----	1,014	14,224	1,725	1,249	1,161	111	1,626	6,431
April-June	1,481	1,379	1,433	4,293	----	1,110	15,612	1,990	1,044	101	127	1,016	4,478
Season	1,710	551	1,122	3,383	18,448	4,784	24,396	6,715	4,716	4,849	3,148	3,431	24,161
1949-50:													
July-Sept.	2,313	2,991	1,884	6,191	18,897	412	17,428	717	1,156	1,995	1,191	1,135	6,219
Oct.-Dec.	8,882	1,435	1,978	12,297	----	7,201	19,498	1,316	1,218	761	1,305	1,138	7,844
Jan.-March	4,757	1,114	1,328	17,414									

*Calculated from trade sources, 1944-45; from Bureau of Census 1945 to date. †Less than 500 bu. (Grain only.

red, No. 1 heavy white, No. 1 heavy special red.

Deliverable at premium, 1½¢ per bu.: No. 2 heavy white, No. 2 heavy special red.

Deliverable at premium, ½¢ per bu.: No. 1 white, No. 1 special red, No. 1 heavy white, No. 1 heavy special red.

Deliverable at contract price: No. 2 white, No. 2 special red.

Deliverable at discount, 1½¢ per bu.: No. 2 medium heavy white, No. 2 medium heavy special red.

Deliverable at discount, 1½¢ per bu.: No. 1 white, No. 1 special red.

*Freight rate carry no additional premium or discount.

Minneapolis

Deliverable grades of wheat, corn, oats, rye, barley and flaxseed.

Warehouse receipts of certain elevators in Duluth, Minn., and Superior, Wis., which have been declared eligible by the board of directors of the Minneapolis Grain Exchange, may be delivered upon Minneapolis spring wheat, oats, rye, barley and corn futures at the Minneapolis contract basis, and upon Minneapolis flaxseed futures at ½¢ per bu. discount under the Minneapolis contract basis.

Contract Grades and Standards.—Except as hereinafter provided, all Futures Contracts made in this market shall call for the delivery of the Contract Grade, or another Deliverable Grade, of the commodity specified in such contracts, in accordance with the United States Standards which were in effect at the time such contracts were made.

Provided, however, that after the date on which an amendment to the United States standards for any commodity has been announced, and prior to the date upon which such amendment becomes effective, Futures Contracts in such commodity may be made which call for delivery on or after the date upon which such amendment becomes effective, in accordance with the United States standards as so amended, if the making of such contracts has been duly authorized by the Association.

Provided further, that the provisions of this section shall not be construed to prevent the dealing on and after the effective date of such changes, of trades which were made, on the basis of the old standards, prior to the effective date of such change. (See Rules and Regulations under Commodity Exchange Act, Sec. 14E.) (Rule 1001.) The contract grades of commodities shall be as set forth below and such grades shall be deliverable at the contract price: No. 1 Northern Spring Wheat on the Spring Wheat future; No. 2 Amber Durum on the Durum Wheat future; No. 2 Yellow Corn, No. 2 White Oats; No. 2 Barley on the Feed Barley future; No. 1 Malting Barley on the Malting Barley future; No. 2 Rye; No. 1 Flaxseed. Other grades are deliverable at specified premiums or discounts. (Rule 1003.)

Deliveries.—How Made.—Delivery on Futures Contracts shall be made by the delivery of registered warehouse receipts for commodities "in store" in an elevator which is "Regular" under the Rules of the Association. Such receipts must be for a Contract or other Deliverable Grade of the commodity specified in the Futures Contract, in accordance with the United States standards made applicable to such contract by the provisions of Section 1001, and must be accompanied by freight bills (and/or checks) as provided in this Chapter.

Attention is directed to the fact that, under the law, warehouse receipts call for the delivery by the warehouseman of commodities of the kind and grade specified in the receipt, in accordance with the official standards which were in effect at the time the commodities represented by the receipts were graded.

All warehouse receipts delivered on Futures Contracts must bear dates, which, under the interpretation of the law hereinabove stated, make them uniform to the requirements of this section. (Rule 1004.)

Quantities Deliverable.—Deliveries of all commodities on Futures Contracts shall be in lots of one thousand (1,000) bus or multiples thereof, except in the case of Flaxseed, in which deliveries shall be in lots of five hundred (500) bus or multiples thereof. (Rule 1005.)

Contract Price.—The contract price for Futures Contracts cleared by the Clearing Association shall be the last settling price for such contracts with the Clearing Association. (Rule 1007.)

WHEAT

Deliverable at premium, 1¢ per bu.: No. 1 heavy dark northern spring.

Deliverable at premium, ½¢ per bu.: No. 1 dark northern spring, No. 1 heavy northern spring.

Deliverable at contract price: No. 1 northern spring.

Deliverable at discount, ½¢ per bu.: No. 2 dark northern spring.

Deliverable at discount, 1¢ per bu.: No. 2 northern spring.

DURUM WHEAT*

Deliverable at premium, ½ per bu.: No. 1 hard amber, No. 2 hard amber.

Deliverable at contract price: No. 1 amber, No. 2 amber.

Deliverable at discount, ½ per bu.: No. 1 amber mixed, No. 2 amber mixed, No. 3 hard amber.

Deliverable at discount, 1¢ per bu.: No. 1, No. 2.

Deliverable at discount, 1¢ per bu.: No. 3 amber.

*Trading in durum wheat for future delivery was provided for by vote of membership, July 31, 1947, and trading in September, 1947, and subsequent futures was authorized to start July 28, 1947.

FEED BARLEY†

Deliverable at premium, ½ per bu.: No. 1, No. 1 malting.

Deliverable at contract price: No. 2, No. 2 malting.

Deliverable at discount, ½ per bu.: No. 3

†Trading is dormant.

RYE

Deliverable at premium, ½ per bu.: No. 1 plump.

Deliverable at premium, 1½¢ per bu.: No. 2 plump.

Deliverable at premium, 1¢ per bu.: No. 1.

Deliverable at contract price: No. 2, No. 2 plump.

Deliverable at discount, ½ per bu.: No. 3

MALTING BARLEY†

Deliverable at contract price: No. 1 malting barley, No. 2 malting barley.

†Trading is dormant.

CORN

Deliverable at contract price: No. 1 yel-

Van Dusen-Harrington Company

◆ *Grain Merchants* ◆

BUSINESS FOUNDED IN 1852

MINNEAPOLIS Pv DULUTH

low corn. No. 2 yellow.

Deliverable at discount, 1½c per bu.: No. 3 yellow corn.

WHITE OATS

Deliverable at premium, 1¢ per bu.: No. 1 extra heavy, No. 1 extra heavy bright.

Deliverable at premium, ½ per bu.: No. 2 extra heavy, No. 2 extra heavy bright.

Deliverable at premium, ½ per bu.: No. 3 extra heavy, No. 3 extra heavy bright.

Deliverable at premium, ½ per bu.: No. 1 heavy, No. 1 heavy bright.

Deliverable at premium, 1½¢ per bu.: No. 2 heavy, No. 2 heavy bright.

Deliverable at premium, ½ per bu.: No. 1, No. 1 bright.

Deliverable at premium, ½¢ per bu.: No. 2 heavy, No. 2 heavy bright.

Deliverable at contract price: No. 2, No. 2 bright.

Deliverable at discount, ½ per bu.: No. 3 medium heavy*.

Deliverable at discount, ½ per bu.: No. 3, No. 3 bright.

*New grade, effective June 1, 1947.

BARLEY

Deliverable at contract price: No. 1 fancy malting.

Deliverable at discount, ½ per bu.: No. 2 fancy malting.

*Discount on No. 1 fancy malting was increased July 15, 1947, from 1½¢ to 2¢ per bu., but trading in fancy malting is under suspension and cannot be resumed unless authorized by the Board of Directors.

Portland

Deliverable grades of wheat:

WHEAT

All trades shall be on the basis of bulk wheat of grades conforming to the official United States standards, track and/or elevator and/or warehouse, subject to the following discounts and differentials:

DELIVERIES MADE BY TENDERS OF WAREHOUSE RECEIPTS

Deliverable at contract price: No. 1 hard white wheat, No. 1 soft white, No. 1 white club, No. 1 western white, No. 1 heavy dark northern spring, No. 1 heavy northern spring, No. 1 heavy red spring, No. 1 dark northern spring, No. 1 northern spring, No. 1 red spring, No. 1 dark hard winter, No. 1 hard winter, No. 1 yellow hard winter, No. 1 western red.

Deliverable at discount, 1c per bu: No. 2 of the above subclasses.

Deliverable at discount, 3c per bu: No. 3 of the above subclasses.

Deliveries on contracts may be tendered either in rail or truck at Portland, or in regular warehouses or elevators at Portland, or in elevators or warehouses at country points which have been designated regular by the board of directors. (Secs. 2, 3 and 4, Trading Rule XVI).

DELIVERIES MADE ON TRACK

Deliverable at contract price: No. 1 of the above subclasses.

Deliverable at discount: Nos. 2 and 3 of the above subclasses shall be accepted at the published discounts, differentials and service charges of the Portland Grain Exchange in effect at the time trade is executed.

Portland Grain Exchange schedule of differentials, discounts and service charges in effect at time trade is executed shall govern that settlement as is applied to smooth wheat, market differentials, remelting, test order weeks and interest charges. (Secs. 1 and 2, Trading Rule XV.)

St. Louis

Deliverable grades of wheat, corn and oats:

WHEAT

Deliverable at contract price: No. 1 red winter wheat, No. 2 red winter.

CORN

(Futures trading suspended June 23, 1943.)

Deliverable at premium, ¾¢ per bu: No. 1 white corn, No. 2 white, No. 1 yellow, No. 2 yellow.

Deliverable at contract price: No. 1 mixed corn, No. 2 mixed.

Deliverable at discount, ½ per bu.: No. 3 white corn, No. 3 yellow.

Deliverable at discount, 1½¢ per bu.: No. 3 mixed corn.

During the months of March, April and May No. 2 white corn, No. 2 yellow and No. 2 mixed cannot be delivered except at a further discount of two cents (2¢) per bu from subplus stocks.

OATS

Deliverable at contract price: No. 1 white oats, No. 2 white.

Deliverable at discount, 1½¢ per bu: No. 3 white oats.

MILLFEED FUTURES

Deliverable grades of millfeeds and premiums or discounts per 100 lb., April 30, 1947:

USINES VERMYLEN S. A.

BAASRODE-near-Antwerp, Belgium

Importers: Meals of animal origin, oil cakes, grains, vitamins and all specialties for cattle, pigs and poultry.

Exporters: Phosphates—Produce of the Belgian Congo.

And

"Globamine" amino-acids for animal feeding. A revolution.

MILLFEED*†

Commodity	Grade	Prem. or discounts cents
Delivered St. Louis:		
Wheat bran	1	2*
Gray wheat shorts and/or flour middlings	1	2*
Delivered Chicago**:		
Wheat bran	1	2*
Standard wheat middls	1	2*

*Contract price.

†Trading in millfeed futures contracts shall be in the following commodities: Wheat bran—St. Louis; gray wheat shorts and/or flour middls—St. Louis; wheat bran—Chicago; standard wheat middls—Chicago. (Rules 1056, 1057, 1058, 1059, 1060.) "Any or all of the above named commodities, when labeled and guaranteed by the seller to conform with the definitions of the Association of Feed Control Officials of the U.S., shall be deliverable on their respective contracts except those derived from durum wheat, which shall not be deliverable." (Rule 1061.)

‡"St. Louis contracts contemplate shipment into or from the City of St. Louis, Mo., or East St. Louis, Ill." (Rule 1056.)

**"Chicago contracts contemplate shipment into or from the City of Chicago, Ill." (Rule 1060.)

Packages—Effective April 8, 1947, all millfeed tendered must be packed "in 100 lb. net weight new burlap sacks, or in 100 lb. net weight new cotton sacks of 4.32 yards to the pound minimum weight material and of adequate size; or, until otherwise specified by the Board of Directors, in comparable used bags, at a basis to be determined by the Board . . . not to exceed a discount of 10¢ per ton. No car load of millfeed shall be a valid tender unless the contents are packed exclusively in burlap sacks or in cotton sacks." (Regulation 113, adopted April 8, 1947, in accordance with Rule 1074.)

All millfeed tendered must be "cool, sound and sweet." (Rule 1076.)

The unit of trade is 120 tons. Lesser quantities in multiples of 20 tons are considered job lots. Deliveries must be made in 20-ton cars. Each carlot must be the product of one mill. (Rule 1042.)

Delivery Months—"Effective Oct. 28, 1946, trading in millfeed futures shall be in contracts for delivery in January, March, May, July, September and November. Beginning with the nearest delivery month, not more than five delivery months may be traded in at any one time in the order stated." (Regulation 113, as amended Oct. 28, 1946.)

"Price fluctuations in contracts for millfeed for future delivery shall be in multiples of 5¢ per ton." (Rule 1078.)

San Francisco

Deliverable grades of wheat and barley: All contracts except car lot transactions

U.S. Stocks of Wheat and Rye

Note: In bushels, 000's omitted. **Source: USDA**

Grain and position	Jan. 1 1948	Jan. 1 1948	Oct. 1, 1947	Jan. 1 1947
Wheat:				
On farms*	416,695	391,278	472,208	327,230
Terminals†	141,859	166,746	261,109	218,635
Commodity Credit Corp.‡	3,106	2,791	8,272	7,801
Merchant Mills*‡	111,138	105,111	135,488	117,749
Int. mills, elevators & warehouses*‡	118,837	293,835	242,641	236,294
Total	891,615	958,474	1,119,118	904,106
Rye:				
On farms*	7,395	8,748	8,892	4,807
Terminals†	4,872	6,748	6,435	8,374
Int. mills, elevators & warehouses*‡	3,147	3,805	3,870	3,233
Total	14,414	17,290	18,997	17,414

*Estimates of Crop Reporting Board. †Commercial stocks reported by Grain Branch, PMA, at 43 terminal cities. ‡Owned by CCC and stored in bins or other storage owned or controlled by CCC, also CCC-owned grain in transit and in Canadian elevators. §Mills reporting to the Bureau of the Census on millings and stocks of flour. ‖All off-farm storages not otherwise designated for each grain.

U.S. Parity Wheat Prices, by Months

Note: By months and crop years in cents. **Source: USDA**

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mch.	Apr.	May	June
1945	216.0	215.0	214.0	212.0	212.0	212.0	212.0					
1946	222.0	221.0	221.0	220.0	219.0	219.0	219.0	217.0	217.0	217.0	217.0	217.0
1947*	223.0	227.0	224.0	211.0	211.0	217.0	223.0	218.0	218.0	220.0	221.0	223.0
1948	176.0	180.0	177.0	183.0	187.0	186.0	190.0	196.0	201.0	203.0	202.0	203.0
1949	183.0	183.0	184.0	186.0	185.0	186.0	186.0	187.0	189.0	189.0	186.0	186.0
1944	150.0	150.0	150.0	150.0	151.0	151.0	152.0	152.0	153.0	153.0	153.0	153.0
1943	145.0	145.0	146.0	147.0	148.0	149.0	149.0	150.0	151.0	150.0	150.0	150.0
1942	134.4	134.4	135.3	136.1	137.0	137.8	139.7	141.4	142.3	143.2	144.1	145.0
1941	117.8	120.2	122.6	124.9	126.4	126.4	126.4	126.9	127.9	128.8	129.4	129.4
1940	113.3	113.3	113.3	113.3	113.3	113.3	113.3	113.3	114.0	114.0	114.0	116.7
1939	111.4	113.0	113.3	113.3	113.3	113.3	113.3	113.3	113.3	113.3	113.3	113.3
1938	113.3	113.3	112.3	111.3	111.3	111.4	111.4	111.4	111.4	111.4	111.4	111.4
1937	121.1	120.2	118.5	116.7	116.8	115.8	115.8	116.8	116.8	116.8	116.8	116.8
1936	113.2	114.3	115.8	116.8	116.8	116.7	116.6	120.0	120.3	121.1	121.1	121.1
1935	110.6	114.9	113.3	111.8	111.3	111.3	112.3	112.3	111.4	111.4	111.4	110.5

Computation of parity prices: Average price in base period (August, 1909, to July, 1914) × monthly index of prices paid by farmers, interest and taxes. Example: Base price of 88.6¢ × July, 1942, index of 168=148¢

as provided in rule X of the San Francisco Grain Exchange, made through the cashier for the future delivery of inspected grain are known as "time contracts."

Deliveries of grain upon "time contracts" must be made in warehouses designated as "regular" or f.o.b. cars under the provisions of rule XIII, sec. 1, of the rules of the San Francisco Grain Exchange.

WHEAT

All purchases and sales of wheat on "time contracts" shall be on the basis of federal grades, in burlap bags, and subject to the grain exchange schedule of differentials, discounts and dockages in effect on the date contract is made.

Deliverable at contract price: No. 1 hard white wheat, No. 1 soft white.

Deliverable at discount, 5c per cental: No. 1 white club wheat, No. 1 western white.

BARLEY

Deliverable at contract price: No. 1 bright western barley (official grain standard of the United States, in making deliveries of which seller shall deliver barley of such test weight per bu as the board of directors shall determine during the month of June each year).

Deliverable at discount, 10c per ton: No. 2 western barley (season's standard test weight), No. 2 bright western (test weight 1 lb less than the season's standard test weight).

Deliverable at discount, $1 per ton: No. 3 western barley (test weight 1 lb less than the season's standard test weight).

On deliveries in fulfillment of all contracts effected prior to the adoption of any change in said test weight as promulgated by the board of directors, the seller shall deliver barley of such test weight as may have been in effect prior to any change, said contracts to be designated "old" when called after any test weight change, and contracts entered into subsequent to any test weight change to be designated "new."

Winnipeg Average Wheat Prices

Note: Average daily closing prices of cash No. 1 northern wheat by months and crop years, in cents per bushel (fractions omitted). Source: Winnipeg Grain Exchange.

Crop of—	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	As of years
*1948-49	175	175	175	175	175	175	175	175	175	175	175	175	175
*1946-49	175	175	175	175	175	175	175	175	175	175	175	175	175
*1947-48	175	175	175	175	175	175	175	175	175	175	175	175	175
*1946-47	175	175	175	175	175	175	175	175	175	175	175	175	175†
*1945-46	175	175	175	175	175	175	175	175	175	175	175	175	175
†1944-45	143	143	143	143	143	143	143	143	143	143	143	143	143
†1943-44	137	137	137	137	137	137	137	137	137	137	137	137	137
1942-43	89	90	90	91	90	90	90	91	90	90	100	109	93
1941-42	73	73	74	73	74	77	78	78	79	79	80	81	77
1940-41	73	73	70	72	73	74	75	76	76	76	77	75	75
1939-40	68	70	70	71	85	82	84	87	89	90	73	71	77
1938-39	77	83	81	80	81	85	85	86	85	85	85	85	83
1937-38	132	134	143	132	137	148	146	154	154	153	154	89	133
1936-37	102	104	111	109	120	125	127	129	130	131	124	146	123
1935-36	84	90	91	88	85	85	83	83	86	77	78	82	84
1934-35	84	83	78	80	79	79	78	83	83	84	82	81	82
1933-34	73	67	65	64	68	67	65	66	68	71	77	82	68
1932-33	56	52	48	47	42	44	43	48	54	53	57	63	54

*The initial price to producers for the five-year period ending July 31, 1948, was increased to $1.75 bu. in February, 1949. The initial payment covers all wheat delivered to the Canadian Wheat Board after Aug. 1, 1945. Originally the initial price to producers was $1.55 bu. covering the five-year period of the Canada-U.S. wheat agreement. The $1.75 price does not include final participation certificate payments.

†Trading in wheat futures and cash wheat on the Winnipeg Grain Exchange was suspended as at the close, Sept. 27, 1943. On Sept. 28 the Dominion government proclaimed the price of No. 1 northern fixed at a maximum of $1.31 bu. basis in store Fort William and Port Arthur. The above averages include final participation certificate payments.

Seattle

Deliverable grades of wheat:

WHEAT

All sales and purchases on futures contracts shall be on basis bulk wheat, federal grades, subject to discounts and differentials applicable on futures contracts as adopted by the Seattle Grain Exchange.

Deliverable at contract price: No. 1 soft white wheat, No. 1 western white, No. 1 white club, No. 1 hard winter, No. 1 yellow hard winter, No. 1 northern spring, No. 1 red spring, No. 1 western red, No. 1 dark northern spring, No. 1 dark hard winter, No. 1 hard white.

No. 2 and No. 3 wheat shall be accepted on contract at the regular Seattle Grain Exchange discounts and differentials. Wheat taking a grade lower than No. 3 is not applicable on contract.

Sacked wheat, of the grades specified above, may be delivered on contracts at the differentials established by the Seattle Grain Exchange, in effect at the time of delivery.

Delivery on contracts may be tendered in cars at Auburn, Black River Junction, Interbay, or other established diversion points west of the Cascades; in regular warehouses or elevators at Seattle and Tacoma; also in elevators and warehouses at country points which have been declared regular by the board of trustees.

Winnipeg

Contract grades deliverable on futures contracts:

WHEAT

(Futures trading suspended Sept. 28, 1943.)

Deliverable at contract price: No. 1 Manitoba northern wheat, higher grade wheat.

Deliverable at discount, 2c per bu.: No. 2 Manitoba northern wheat.

Deliverable at discount, 4c per bu.: No. 3 Manitoba northern wheat.

Deliverable at discount, 1½c per bu.: No. 1 Canadian western garnet wheat.

Deliverable at discount, 1½c per bu.: No. 2 Canadian western garnet wheat.

Deliverable at discount, 1½c per bu.: No. 3 Manitoba northern wheat.

Deliverable at discount, 7½c per bu.: special No. 1 wheat.

OATS

Deliverable at contract price: No. 2 Canada western oats, higher grade oats.

Deliverable at discount, ½c per bu: No. 3 Canada western oats, extra No. 2 Canada western oats, extra No. 1 feed.

Deliverable at discount, 1c per bu: No. 1 feed oats.

RYE

Deliverable at contract price: No. 1 Canada eastern rye, No. 2 Canada western.

Deliverable at discount, 1c per bu: No. 3 Canada western rye.

FLAXSEED

Deliverable at contract price: No. 1 Canada western flaxseed.

Deliverable at discount, 10 bu.: No. 2 Canada western flaxseed.

BARLEY

Deliverable at contract price: No. 2 Canada western six-row, No. 3 Canada western six-row barley, No. 1 Canada western six-row, No. 2 Canada western two-row, No. 3 Canada western two-row, No. 2 Canada western yellow.

Deliverable at discount, 2c bu.: No. 1 Canada western yellow barley.

Deliverable at discount, 4c bu.: No. 1 feed barley.

Deliverable at discount, 11c bu.: No. 2 feed barley.

Equipped and manned to serve you well

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- SCREENINGS OIL FEED

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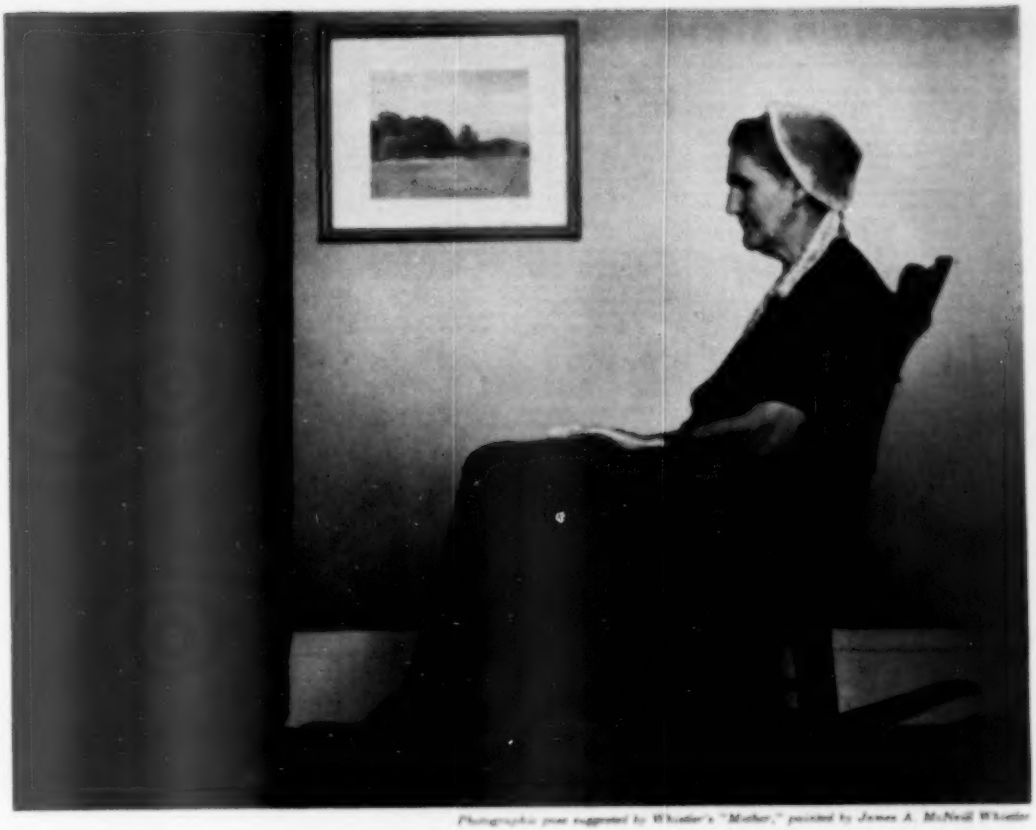


Photographic print suggested by Whistler's "Mother," painted by James A. McNeill Whistler

A Letter to My Mother

Dearest Mother:

Your letter brought joy and tears to us all. How happy we are that soon you and Dad can come to America! You say all our old neighbors over there want to come to America. Finally, they are seeing through those "ism" politicians. You have been promised the moon for your votes. But your people have lost the incentive to work, to own a farm or a business or to work a farm on shares. We all hope that will never happen here.

Love, Dave

• • •

Millions want to come to America. Who wants to leave? Not even the "ism" howlers. Not even those who would destroy us.

For every American who wants to move to an "ism" nation, there are thousands who want to leave "isms" to come to America.

We at Cargill want to stay here, and so do you. We have the incentive to devise better methods of handling your grain—to develop better seeds for you to grow—to make better feeds for your livestock and poultry.

Let's not wait until it's too late. Let's speak out now for the incentive system that has made this nation the haven so many others hope to reach some day.

CARGILL

SPECIALISTS IN SERVING *Agriculture*

OFFICES IN MINNEAPOLIS AND 35 OTHER CITIES

U.S. Grain Standards for Wheat

United States grain standards for wheat, effective Oct. 1, 1957, as promulgated by the Department of Agriculture:

Wheat.—Wheat shall be any grain which, before the removal of dockage, consists of 50% or more of wheat and not more than 10% of other grains for which standards have been established under the provisions of the United States Grain Standards Act, and which, after the removal of dockage, contains not more than 50% of broken kernels of grain of any size. The term wheat in these standards shall not include emmer, spelt, einkorn, Polish wheat and poulard wheat.

(The specifications of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug and Cosmetic Act.)

Classes.—Wheat shall be divided into seven classes, as follows: Class I, hard red spring wheat; Class II, durum wheat; Class III, red durum wheat; Class IV, hard red winter wheat; Class V, soft red winter wheat; Class VI, white wheat; and Class VII, mixed wheat.

Grades.—Wheat shall be graded and designated according to the respective grade requirements of the numerical grades and sample grade of its appropriate class or subclass, and according to the special grades when applicable.

HARD RED SPRING WHEAT (CLASS I)

This class shall include all varieties of hard red spring wheat, and may include not more than 10% of wheats of other classes. This class shall be divided into three subclasses, as follows:

Subclass (A) Dark Northern Spring

This subclass shall include wheat of the class hard red spring wheat, consisting of 75% or more of dark, hard and vitreous kernels. This subclass shall not include more than 10% of wheat of the variety Humpback.

Subclass (B) Northern Spring

This subclass shall include wheat of the class hard red spring wheat, consisting of more than 25% but less than 75% of dark, hard and vitreous kernels. This subclass shall not include more than 10% of wheat of the variety Humpback.

Subclass (C) Red Spring

This subclass shall include wheat of the class hard red spring wheat, consisting of not more than 25% of dark, hard, and vitreous kernels. This subclass shall also include wheat of the class hard red spring wheat consisting of more than 10% of the variety Humpback.

DURUM WHEAT (CLASS II)

This class shall include all varieties of common durum wheat, and may include not more than 10% of wheats of other classes. This class shall be divided into three subclasses, as follows:

Subclass (A) Hard Amber Durum

This subclass shall include wheat of the class durum wheat, consisting of 75% or more of hard and vitreous kernels of amber color.

Subclass (B) Amber Durum

This subclass shall include wheat of the class durum wheat, consisting of 60% or more but less than 75% of hard and vitreous kernels of amber color.

Subclass (C) Durum

This subclass shall include wheat of the class durum wheat, consisting of less than 60% of hard and vitreous kernels of amber color.

RED DURUM WHEAT (CLASS III)

This class shall include all varieties of red durum wheat, and may include not more than 10% of wheats of other classes.

HARD RED WINTER WHEAT (CLASS IV)

This class shall include all varieties of hard red winter wheat, and may include not more than 10% of wheats of other classes. This class shall be divided into three subclasses, as follows:

Subclass (A) Dark Hard Winter

This subclass shall include wheat of the class hard red winter wheat consisting of 75% or more of dark, hard and vitreous kernels.

Subclass (B) Hard Winter

This subclass shall include wheat of the class hard red winter wheat consisting of more than 25% but less than 75% of dark, hard and vitreous kernels.

Subclass (C) Yellow Hard Winter

This subclass shall include wheat of the class hard red winter wheat consisting of not more than 25% of dark, hard and vitreous kernels.

SOFT RED WINTER WHEAT (CLASS V)

This class shall include all varieties of soft red winter wheat and may include not more than 10% of wheats of other classes. This class shall be divided into two subclasses, as follows:

Subclass (A) Red Winter

This subclass shall include wheat of the class soft red winter wheat consisting of both light and dark colored kernels. This subclass shall not include more than 10% of soft red winter wheat grown west of the Great Plains area of the United States.

Subclass (B) Western Red

This subclass shall include wheat of the class soft red winter wheat consisting of more than 10% of wheat of this class grown west of the Great Plains area of the United States.

WHITE WHEAT (CLASS VI)

This class shall include all varieties of white wheat, whether winter or spring grown, and may include not more than 10% of wheats of other classes. This class shall be divided into four subclasses, as follows:

Subclass (A) Hard White

This subclass shall include all wheat of the class white wheat consisting of 75% or more of hard (not soft and chalky) kernels. This subclass shall not include more than 10% of Sonora wheat or wheat of the white club varieties, either singly or in any combination.

Subclass (B) Soft White

This subclass shall include wheat of the class white wheat consisting of less than 75% of hard (not soft and chalky) kernels. This subclass shall not include more than 10% of Sonora wheat or wheat of the white club varieties, either singly or in any combination.

Subclass (C) White Club

This subclass shall include wheat of the class white wheat consisting of Sonora wheat or wheat of the white club varieties, either singly or in any combination. This subclass shall not include more than 10% of common white wheat other than Sonora, either singly or in any combination.

Subclass (D) Western White

This subclass shall include wheat of the class white wheat, which contains more than 10% of Sonora wheat or wheat of the white club varieties, either singly or in any combination, and which also contains more than 10% of common white wheat other than Sonora.

MIXED WHEAT (CLASS VII)

This class shall include all mixtures of wheat not provided for in the classes from I to VI, inclusive.

Grade Requirements and Designations.—Mixed wheat shall be graded according to the numerical and sample grade requirements of the class of wheat which predominates in the mixture, except that the grade specifications for the factor "wheats of other classes" and the grade specifications for "No. 1 heavy" in the standards for hard red spring wheat, shall be disregarded.

The grade designation for mixed wheat shall be stated as provided in paragraph (a), (b) or (c) of this section:

(a) Except as specified in paragraphs (b) and (c) of this section the grade designation for mixed wheat shall include successively, in the order named, (1) the number of the grade or the words "sample grade," as the case may be, (2) the words "mixed wheat," and (3) the name and approximate percentage of each class of wheat which constitutes more than 10% of the mixture in the order of its predominance, but if only one class exceeds 10% of the mixture, the

CLASS I—HARD RED SPRING WHEAT

Grade requirements for (a) dark northern spring, (b) northern spring, (c) red spring.

	Grade No. †*1 heavy	†1	†2	3	4	5
Minimum test weight per bu., lbs.	60	58	57	55	53	50
Maximum limits of—						
Damaged kernels (wheat and other grains)—Total, %	2	2	4	7	10	15
Heat-damaged, %	0.1	0.1	0.2	0.5	1.0	3.0
Foreign material—Total, %	1	1	2	3	5	7
Matter except other grains, %	0.5	0.5	1.0	2.0	3.0	5.0
Wheats of other classes—Total, %	5	5	10	10	10	10
Durum and/or red durum, %	2	2	3	5	10	10

Sample Grade.—Sample grade shall include wheat of the subclass dark northern spring, or northern spring, or red spring, which does not come within the requirements of any of the grades from No. 1 heavy to No. 5, inclusive; or which contains more than 14% of moisture; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately, or which is otherwise of distinctly low quality.

*Applies to each of the subclasses dark northern spring, northern spring and red spring.

†The wheat in grades No. 1 heavy and No. 1 of this class may contain not more than 7%, and the wheat in grade No. 2 of this class may contain not more than 10%, of shrunken and/or broken kernels of grain and other matter that will pass through a 12-gage metal sieve with slotted perforations 0.064 inch wide by ⅜ inch long.

U.S. Durum Wheat Supply and Distribution

Note: In bushels, 000's omitted. **Source: USDA**

Items of supply and distribution—	1944-45	1945-46	1946-47	1947-48	1948-49	1949-50
Supply—Stocks July 1—						
Farm	6,507	2,388	2,148	2,714	3,903	5,557
Interior mills and elevators	1,195	1,251	335	411	2,512	3,742
Commercial	2,990	259	1,188	2,477	532	6,311
Merchant mills	1,579	1,101	511	3,301	1,880	1,197
Total	14,391	8,338	4,925	8,897	10,508	17,788
Crop*	30,328	33,384	36,237	43,993	42,478	38,337
Total domestic supply	44,819	41,421	41,380	53,893	52,787	57,237
Imports	13,093	11,191	1,550			
Total supply, July-December	57,712	52,612	41,810	53,891	52,787	57,237
Distribution, July-December—						
Mill grindings	12,733	12,051	11,139	11,881	11,353	11,093
Feed, cereal mfg. & other uses	9,418	9,375	1,274	700	1,820	3,733
Exports				4,449	937	1,133
Total	19,132	19,188	12,863	19,481	14,938	15,839
Stocks Dec. 31—						
Farm	14,781	17,410	13,334	24,319	25,483	25,513
Interior mills and elevators	1,981	2,022	4,577	3,704	7,874	7,604
Commercial	1,181	902	831	3,048	3,378	3,478
Merchant mills	8,900	3,180	3,137	3,319	3,131	3,323
Total	26,313	24,434	24,347	34,481	41,748	40,597
Imports, January-June	11,207	2,349	2			
Total supply, January-June	38,720	24,789	24,347	34,481	41,748	
Distribution, January-June—						
Mill grindings	21,281	8,879	9,433	14,187	10,232	
Seed requirements	3,828	3,983	4,138	4,591	4,737	
Feed, cereal mfg. & other uses	2,557	8,781	5,063	3,893	7,951	
Exports			811	5,902	1,078	
Total	32,644	19,644	20,050	24,187	23,888	
Stocks, June 30	6,030	4,923	4,997	10,008	17,750	

*All states, [illegible] durum shipped into the U.S. [illegible].

name and approximate percentage of the class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class.

(b) Amber Mixed Durum.—Amber mixed durum shall be mixed wheat consisting of a mixture of durum and other wheats, which contains not more than a total of 15% of wheats other than common durum and which contains not less than 85% of durum kernels that are hard and vitreous and of amber color. Amber mixed durum may contain not more than 15% of red durum, white and soft red winter wheat, singly or combined.

The grade designation for amber mixed durum shall include successively, in the order named, (1) the number of the grade or the words "sample grade," as the case may be, and (2) the words "amber mixed durum."

(c) Mixed Durum.—Mixed durum shall be mixed wheat consisting of a mixture of durum and other wheats, which contains not more than a total of 10% of wheats other than common durum. Mixed durum may contain not more than 5% of red durum wheat, and may contain not more than 5% of white and soft red winter wheat, singly or combined.

The grade designation for mixed durum shall include successively, in the order named, (1) the number of the grade or the words "sample grade," as the case may be, and (2) the words "mixed durum."

CLASS II—DURUM WHEAT, AND CLASS III, RED DURUM WHEAT

Grade requirements for the subclasses (a) hard amber durum, (b) amber durum, and (c) durum, of the class durum wheat, and for the class red durum wheat.

	Grade No.				
	1	2	3	4	5
Minimum test weight per bu, lbs	58	56	54	54	51
Maximum limits of—					
Damaged kernels (wheat and other grains)—Total, %	2	4	7	10	15
Heat damaged, %	0.1	0.2	0.5	1.0	3.0
Foreign material—Total, %	1	2	3	5	7
Matter except other grains, %	0.5	1.0	1.0	3.0	3.0
Wheats of other classes—Total, %	5	10	10	10	10
Soft red winter, white and red durum, singly or combined*, %	1	5	10	10	10

Sample Grade.—Sample grade shall include wheat of the subclass hard amber durum, or amber durum, or durum, or wheat of the class red durum wheat, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive, or which contains more than 15% moisture; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

*These specifications do not apply to the class red durum wheat, or to the subclass durum. The 1 red durum may contain 10% of wheats of other classes.

†The wheat in grades No. 1 and No. 2 of each of these classes may contain not more than either (a) 7% of shrunken and/or broken kernels of grain and other matter that will pass through a 12-gage metal sieve with slotted perforations 0.064 inch wide by ¾ inch long, or (b) 10% of all such material that will pass through said sieve together with broken kernels of grain of any size which remain on said sieve; and the wheat in grade No. 3 of each of these classes may contain not more than either (a) 10% of shrunken and/or broken kernels of grain and other matter that will pass through said sieve, or (b) 15% of all such material that will pass through said sieve together with the broken kernels of grain of any size which remain on said sieve.

CLASS IV—HARD RED WINTER WHEAT

Grade requirements for (a) hard dark winter, (b) hard winter, (c) yellow hard winter.

	Grade No.				
	*1	*2	*3	4	5
Minimum test weight per bu, lbs	60	58	56	54	51
Maximum limits of—					
Damaged kernels (wheat and other grains)—Total, %	2	4	7	10	15
Heat damaged, %	0.1	0.2	0.5	1.0	3.0
Foreign material—Total, %	1	2	3	5	7
Matter except other grains, %	0.5	1.0	1.0	3.0	3.0
Wheats of other classes—Total, %	5	10	10	10	10
Durum and/or red durum, %	1	2	5	10	10

Sample Grade.—Sample grade shall include wheat of the subclass dark hard winter, or hard winter, or yellow hard winter, which does not come within the requirements of any of the grades from No. 1 to No. 4, inclusive; or which contains more than 15.5% of moisture; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

*The wheat in grades No. 1 and No. 2 of this class may contain not more than 7% and the wheat in grade No. 3 of this class may contain not more than 10% of shrunken and/or broken kernels of grain and other matter that will pass through a 20-gage metal sieve with slotted perforations 0.064 inch wide by ¾ inch long.

CLASS V—SOFT RED WINTER WHEAT

Grade requirements for (a) red winter, (b) western red.

	Grade No.				
	*1	*2	*3	4	5
Minimum test weight per bu, lbs	58	56	54	54	51
Maximum limits of—					
Damaged kernels (wheat and other grains)—Total, %	2	4	7	10	15
Heat damaged, %	0.1	0.2	0.5	1.0	3.0
Foreign material—Total, %	1	2	3	5	7
Matter except other grains, %	0.5	1.0	1.0	3.0	3.0
Wheats of other classes—Total, %	5	10	10	10	10
Durum and/or red durum, %	0.5	1.0	1.0	10.0	10.0

Sample Grade.—Sample grade shall include wheat of the subclass red winter, or western red, which does not come within the requirements of any of the grades from No. 1 to No. 4, inclusive; or which contains more than 15.5% of moisture; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

*The wheat in grades No. 1 and No. 2 of this class may contain not more than 7% and the wheat in grade No. 3 of this class may contain not more than 10% of shrunken and/or broken kernels of grain and other matter that will pass through a 20-gage metal sieve with slotted perforations 0.064 inch wide by ¾ inch long.

CLASS VI—WHITE WHEAT

Grade requirements for (a) hard white, (b) soft white, (c) white club, (d) western white.

	Grade No.				
	*1	*2	*3	4	5
Minimum test weight per bu, lbs	58	56	54	54	51
Maximum limits of—					
Damaged kernels (wheat and other grains)—Total, %	2	4	7	10	15
Heat damaged, %	0.1	0.2	0.5	1.0	3.0
Foreign material—Total, %	1	2	3	5	7
Matter except other grains, %	0.5	1.0	1.0	3.0	3.0
Wheats of other classes—Total, %	5	10	10	10	10
Durum and/or red durum, %	0.5	1.0	1.0	10.0	10.0

Sample Grade.—Sample grade shall include wheat of the subclass hard white, or soft white, or white club, or western white, which does not come within the requirements of any of the grades from No. 1 to No. 4, inclusive; or which contains more than 15.5% of moisture; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

*The wheat in grades No. 1 and No. 2 of this class may contain not more than 7% and the wheat in grade No. 3 of this class may contain not more than 10% of shrunken and/or broken kernels of grain and other matter that will pass through a 20-gage metal sieve with slotted perforations 0.064 inch wide by ¾ inch long.

DOCKAGE

Dockage includes weed seeds, weed stems, chaff, straw, grain other than wheat, sand, dirt and any other foreign material, which can be removed readily from the wheat by the use of appropriate sieves and cleaning devices; also underdeveloped, shriveled and small pieces of wheat kernels removed in properly separating the foreign material and which cannot be recovered by properly recleaning or recleaning.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage so calculated, when equal to 1% or more, shall be stated in terms of whole per cent, and when less than 1% shall not be stated. A fraction of a per cent shall be disregarded. The word "dockage," together with the percentage thereof, shall be added to the grade designation.

Definitions and Standards of Identity for Corn Products

Regulations fixing and establishing definitions and standards of identity for corn products became effective Aug. 11, 1947. These regulations were published in the Federal Register May 13, 1947, as 12 F. R. 3110-13, under Title 21, Food and Drugs, Chapter I, Food and Drug Administration, Federal Security Agency (Docket No. FDC-147). Part 15. Copies of the regulation may be obtained from the Food and Drug Administration, Washington, D. C.

Standards of identity are fixed in the order for the following products: white corn meal, yellow corn meal, bolted white corn meal, bolted yellow corn meal, degerminated white corn meal, degerminated white corn meal, degerminated yellow corn meal, degerminated yellow corn meal, self-rising white corn meal, self-rising yellow corn meal, white corn flour, yellow corn flour, grits, corn grits, hominy grits, yellow grits, yellow corn grits, yellow hominy grits, quick grits, quick cooking grits, enriched corn meal and enriched corn grits.

With the establishment of the standards for enriched corn products the minimum and maximum quantities of riboflavin and iron enrichment required are uniformly established for all the states.

For Additional Facts:

Feed Section - Page 94
- Definitions
- Feed Rules
- Feedstuffs Analysis Table
- Prices
- Production

Flour Section - Page 2
- Exports and Imports
- Production
- World Import Duties

Foreign Section, Page 112
- Crops
- Exports and Imports
- Regulations

Topical Index

U.S. Grain Standards for Corn

United States grain standards for corn, effective Jan. 31, 1937 (revised October, 1949) as promulgated by the Department of Agriculture.

Corn shall be any grain which consists of 50% or more of shelled corn of the dent or flint varieties, and may contain not more than 10% of other grains for which standards have been established under the provisions of the United States Grain Standards Act. (The specifications of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug and Cosmetic Act.)

Classes.—Corn shall be divided into three classes, as follows: class I, yellow corn; class II, white corn, and class III, mixed corn.

YELLOW CORN (CLASS I)

This class shall include yellow corn, and may include not more than 5% of corn of other colors. A slight tinge of red on kernels of corn otherwise yellow shall not affect their classification as yellow corn.

WHITE CORN (CLASS II)

This class shall include white corn, and may include not more than 2% of corn of other colors. A slight tinge of light straw color or of pink on kernels of corn otherwise white shall not affect their classification as white corn.

MIXED CORN (CLASS III)

This class shall consist of corn of various colors that does not meet the color requirements for either of the classes yellow corn or white corn. White-capped yellow kernels shall be classified as mixed corn.

GRADES

Corn shall be graded and designated according to the respective grade requirements of the numerical grades and sample grade of its appropriate class, and according to the special grades when applicable.

FLINT CORN

Definition.—Flint corn shall be corn of any class which consists of 95% or more of corn of any of the flint varieties.

Grades.—Flint corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not flint corn, and the word "flint" shall be added to, and made a part of, the grade designation, immediately following the words yellow corn, or white corn or mixed corn, as the case may be.

FLINT AND DENT CORN

Definition.—Flint and dent corn shall be corn of any class which consists of a mixture of the flint and dent varieties and which contains more than 5%, but less than 95%, of corn of any of the flint varieties.

Grades.—Flint and dent corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not flint and dent corn, and the words "flint and dent" shall be added to, and made a part of, the grade designation, immediately following the words yellow corn, or white corn, or mixed corn, as the case may be.

WEEVILY CORN

Definition.—Weevily corn shall be corn that is infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

DEFINITIONS

Basis of Grade Determinations.—Each determination of class, variety, damage, and heat damage, shall be upon the basis of the grain after the removal of the cracked corn and foreign material. All other determinations shall be upon the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of Moisture.—Percentage of moisture shall be that ascertained by the water oven and the method of use thereof described in Service and Regulatory Announcements No. 147, of the Agricultural Marketing Service of the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test Weight per Bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 14, 1932, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Cracked Corn and Foreign Material.—Cracked corn and foreign material shall include kernels and pieces of kernels of corn and all matter other than corn which will pass through a No. 12 sieve, and all matter other than corn remaining on such sieve after screening.

No. 12 Sieve.—A metal sieve perforated with round holes 12/64 inch in diameter.

Other Grains.—Other grains shall include wheat, rye, oats, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, sweet corn, popcorn and soybeans.

Damaged Kernels.—Damaged kernels shall be kernels and pieces of kernels of corn which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-Damaged Kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of corn which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

GRADE REQUIREMENTS—YELLOW, WHITE, MIXED CORN

	Grade No. 1	2	3	4	5
Minimum test weight, per bu., lbs.	54	53	51	49	46
Maximum limits of—Moisture, %	14	15.5	17.5	20	23
Cracked corn and foreign material, %	2	3	4	5	7
Damaged kernels—					
Total, %	3	5	7	10	15
Heat damaged, %	0.1	0.2	0.5	1	3

Sample Grade.—Sample grade shall include corn of the class yellow corn, or white corn, or mixed corn, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor; or which is otherwise of distinctly low quality.

Wheat Prices: Minneapolis, St. Louis, Kansas City

Note: In cents per bushel. **Source: USDA**

NO. 1 NORTHERN SPRING, MINNEAPOLIS

Year beginning July—	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mch.	Apr.	May	June	Weighted average*
1949	236	226	237	243	246	234	237						
1948	233	235	230	238	237	240	232	234	234	239	231	235	237
1947	264	273	284	317	321	316	320	277	267	267	257	259	286
1946	222	204	210	220	232	236	225	251	272	264	268	272	237
1945†	172	171	169	173	173	173	174	175	177	177	181	190	174
1944†	161	161	164	164	164	166	167	168	169	169	170	172	162
1943†	141	141	143	148	155	163	157	167	167	158	167	153	158
1942†	114	117	119	118	120	132	132	141	144	141	142	141	120
1941†	100	106	112	113	114	122	128	125	126	119	130	114	116
1940†	76	74	82	88	89	88	90	85	90	95	95	101	86
1939†	76	76	91	88	93	102	102	104	104	105	101	82	87
1938†	88	78	76	72	73	77	80	79	77	76	58	54	79
1937†	151	133	124	127	118	120	127	126	119	111	105	106	126
1936†	136	147	145	138	144	159	155	159	153	156	146	148	147
1935†	113	127	133	134	129	126	133	131	126	133	114	126	126
1934†	109	120	121	115	114	117	116	115	113	119	116	105	116
1933	104	91	90	85	85	82	88	90	88	83	84	103	91
1932	57	54	55	54	49	55	58	49	52	63	74	90	61
1931	61	65	69	73	80	72	76	73	78	73	85	80	71

NO. 2 RED WINTER, ST. LOUIS

Year beginning July—	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mch.	Apr.	May	June	Weighted average*
1949	197	198	201	208	216	226	222						
1948	222	215	220	229	229	234	229	224	233	237	234	193	226
1947	237	255	278	298	302	309	312	267	254	254	244	233	276
1946	211	201	208	214	226	232	233	249	261	275	271	229	238
1945	167	169	171	178								194	178
1944	157	155	159	170	171	174	176	176			161	170	...
1943	164	160	171	170	167	182						161	164
1942	121	128	131	134	132	149	154	155		152	158	150	134
1941	101	106	116	113	117	127	134	135	130	131	120	119	118
1940	78	77	83	90	91	91	93	88	99	93	97	102	82
1939	64	69	85	88	92	104	105	106	106	111	104	87	79
1938	69	66	67	65	66	70	73	73	74	78	81	73	70
1937	117	112	109	104	91	91	100	99	92	86	77	73	111
1936	109	117	118	121	123	126	149	141	143	144	132	122	111
1935	87	97	101	110	105	106	109	109	104	107	102	95	95
1934	90	101	104	100	101	104	102	94	95	97	91	89	94
1933	101	80	88	84	86	87	81	81	84	83	87	81	84
1932	47	45	54	50	47	48	50	49	55	49	61	67	55
1931	48	47	47	52	58	57	57	57	55	57	58	59	53

NO. 2 HARD WINTER, KANSAS CITY

Year beginning July—	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mch.	Apr.	May	June	Weighted average*
1949	200	206	211	219	228	232	221						
1948	224	211	209	220	226	229	223	220	224	228	222	195	222
1947	239	255	262	295	298	291	292	251	248	240	246	229	261
1946	182	194	195	201	210	207	208	226	269	268	269	237	228
1945	154	160	162	158	169	169	169	169	172	173	...	166	169
1944	161	151	153	161	158	162	164	158	165	166	167	163	151
1943	139	139	147	152	158	163	165	167	165	164	167	158	154
1942	108	112	108	117	122	131	137	138	140	138	139	138	126
1941	98	107	114	110	113	109	108	125	125	115	111	111	112
1940	71	69	76	82	85	84	88	78	88	87	86	87	82
1939	61	80	85	83	88	88	101	99	102	100	83	76	75
1938	70	65	65	65	65	67	71	69	69	70	76	71	70
1937	122	117	114	106	96	90	103	100	96	95	80	77	111
1936	111	122	122	121	122	134	138	137	139	144	132	121	131
1935	90	104	115	119	113	111	115	118	106	102	95	96	100
1934	91	107	105	103	102	106	101	100	97	101	88	88	90
1933	91	90	87	81	84	80	84	85	82	78	86	88	84
1932	45	48	49	43	41	42	44	44	48	60	70	78	51
1931	41	33	41	43	39	32	53	53	53	53	54	48	47

*Average of daily prices weighted by carlot sales. †No. 1 dark northern spring.

Chicago Oat Prices

Note: High and low, in cents per bushel for contract grades and better. Source: Chicago Board of Trade.

Lowest	Range	Highest
1949 July	59¼ @ 92	January
1948 August	72 @ 152⅝	January
1947 January	83½ @ 139	December
1946 July	74 @ 104	July
1945 August	58⅝ @ 87	December
1944 September	58 @ 87⅝	January
1943 January	56 @ 89	November
1942 July	44 @ 62⅛	January
1941 July	33 @ 58⅝	December
1940 August	28 @ 48	April
1939 July	26 @ 41⅛	December
1938 August	21 @ 36⅛	January
1937 August	23⅝ @ 58⅛	January
1936 Mar-June	19 @ 33⅝	December
1935 August	28⅛ @ 46	January
1934 April	25⅝ @ 51	December
1933 February	13⅝ @ 48	July
1932 October	13⅛ @ 28⅝	January

Grain Elevator Storage Capacity

Elevators at Centers

	No. of elevators	Capacity, bu.
Minneapolis, Minn.	71	21,018,700
Chicago, Ill.	30	21,714,000
Duluth, Minn.	31	20,024,000
Albany, N. Y.	1	12,000,000
New York, N. Y.	1	4,400,000
Buffalo, N. Y.	30	21,440,000
Kansas City, Mo.	31	61,433,000
Detroit, Mich.	8	3,600,000
Indianapolis, Ind.	1	3,000,000
Toledo, Ohio	11	11,000,000
Cincinnati, Ohio	8	3,100,000
Cleveland, Ohio	3	400,000
St. Louis, Mo.	20	15,000,000
New Orleans, La.	1	3,873,000
San Francisco and near by points	11	*554,000
	1	2,250,000
Seattle, Wash.	4	4,725,000
		21,230,000
Portland, Oregon	11	245,500
Tacoma, Wash.	8	1,056,000
		1,818,000
Baltimore, Md.	3	12,750,000
Boston, Mass.	3	3,600,000
Omaha, Neb.	14	18,350,000
St. Joseph, Mo.	13	14,877,000
Milwaukee, Wis.	25	18,170,000
Philadelphia, Pa.	4	4,300,000
Galveston, Texas	5	7,300,000
Houston, Texas		1,000,000
Port Arthur, Texas		400,000
Nashville, Tenn.	14	1,150,000
Memphis, Tenn.	9	4,000,000
Norfolk, Va.		750,000
Ft. Worth, Texas	10	12,000,000
Evansville, Ind.	6	1,000,000
Salina, Kans.	11	10,150,000
Wichita, Kansas	11	13,170,000
Hutchinson, Kansas	17	20,400,000

CANADA

Port William and Port Arthur, Ont.	42,242,000
Montreal, Que.	15,913,000
Port Colborne, Ont.	6,250,000
Port McNicoll, Ont.	5,500,000
Vancouver, B. C.	19,115,000
New Westminster, B. C.	750,000
Victoria, B. C.	1,000,000
Collingwood, Ont.	2,000,000
Goderich, Ont.	1,600,000
Midland, Ont.	12,000,000
Halifax, N. S.	2,200,000
Barrie, Ont.	1,000,000
Kingston, Ont.	1,350,000
Owen Sound, Ont.	4,000,000
Prescott, Ont.	1,500,000
Quebec, Que.	*1,000,000
Toronto, Ont.	4,000,000
St. Boniface, Man.	1,000,000
Three Rivers, Que.	1,000,000
Winnipeg, Man.	3,147,000
Transcona, Man.	1,600,000
North Transcona, Man.	1,000,000
Level, Que.	1,000,000

*Capacity in tons for sacked grain. †Capacity in bushels for sacked grain.

Chicago (Private)

Note: In bushels. Source: Chicago Board of Trade

Grain warehouses in the Chicago district, except those declared "regular" under the rules of the Board of Trade of the City of Chicago, whose certificates are accepted for delivery on Chicago Board of Trade contracts and warehouses under federal and state licenses, but are not regular for delivery on Chicago Board of Trade contracts, Jan. 3, 1936, with capacities:

Operated by—	
Columbia Malting Co.	1,000,000
Corn Products Refining Co.	1,050,000
H. J. Eckhart Milling Co.	1,000,000
Gottfried & Co. (1)	300,000
Glidden & Co.	7,000,000
Fleischmann Malting Co.	1,050,000
Hales & Hunter (1)	1,500,000
A. Schrell & Co.	1,000,000
Arcady Farms Mlg. Co.	91,000
American Maize Prod. Co.	450,000
Archer-Daniels Midland Co.	220,000
J. J. Badenoch Co.	150,000
Globe Linseed Co.	133,000
Santa Fe Elev. Corp.	375,000
Klein Brothers	60,000
H. C. Kinke & Co.	21,000
General Mills, Inc. Central Div.	375,000
Standard Norris Gr. Co.	350,000
Hales Grain Elevator—	
Hales Grain Corp.	300,000
Total	15,611,000

*Operated under custodian rule of Board of Trade. †Part custodian.

Baltimore

Note: In bushels. Source: Baltimore Chamber of Commerce.

Locust Point—B. & O. R. R.	4,000,000
Canton—Pennsylvania R. R. Co.	4,250,000
Port Covington—W. Maryland Ry.	4,000,000
1 Miscellaneous	500,000
Total, one	12,750,000

Boston

Note: In bushels. Source: Boston Grain & Flour Exchange.

Boston & Maine	1,600,000
Boston & Albany (N. Y. C. System)	1,000,000
Totals	2,600,000

Buffalo

Note: In bushels. Source: Buffalo Corn Exchange.

LAKE ELEVATORS

Standard	1,000,000
Concrete-Central	4,000,000
Superior (Cargill)	2,250,000
Intercoll	1,000,000
Cargill Elevator	1,150,000
American	2,350,000
Mutual	2,000,000
G.L.T.	1,000,000
Kellogg	1,100,000
Marine "A"	2,100,000
Connecting Terminal	1,000,000
Monarch	500,000
Canadian Pool Terminal	2,000,000
Lake and Rail	1,000,000
Total	21,000,000

RAIL ELEVATORS

Clark Rail	750,000
Kentucky Rolled Mill	1,250,000
General Mills, Inc.	1,000,000
Bull Fields	300,000
Meyer Malt & Grain	750,000
Tifco Malt	450,000
Buffalo Farms Cooperative	1,150,000
11 elevators	1,800,000
Total	11,350,000
Grand total, 31 elevators	32,350,000

Canadian

Note: In bushels. Source: Board of Grain Commissioners.

	Elevators	Capacity
Manitoba—		
Public country	108	23,836,000
Private country	5	85,000
Mill	4	1,775,000
Private terminal	3	3,845,000
Semi-public terminal	3	3,500,000
	124	33,130,000
Saskatchewan—		
Public country	2,851	107,871,000
Mill	10	4,895,000
Public terminal	2	12,000,000
	2,873	122,766,000
Alberta—		
Public country	1,098	71,334,000
Private country	4	325,000
Mill	11	5,016,000
Private terminal	3	1,600,000
Public terminal	2	3,100,000
	1,118	81,374,000
British Columbia—		
Public country	12	1,316,000
Mill	11	1,176,110
Semi-public terminal	8	26,474,100
Public terminal	1	1,250,000
	32	31,106,110
Ontario—		
Public country	1	125,000
Mill	3	1,400,000
Private terminal	3	2,450,000
Semi-public terminal	23	19,817,710
Eastern	18	23,926,000
	53	147,818,710
Eastern—		
Quebec	9	24,812,000
New Brunswick	1	1,078,000
Nova Scotia	1	2,500,000
	11	28,188,000
Grand totals	5,631	443,515,820

California

Note: In tons. Source: San Francisco Grain Exchange.

San Francisco	30,000
At Oakland—	
Albers Milling Co.	36,000
West Coast Wharf & Storage Co.	*1,100,000
Stockton	100,000
Miscellaneous—	
Granges Warehouse at Bakersfield	10,000
General Mills, Inc., Sperry Div., at South Vallejo	*1,000,000
Miscellaneous spots	15,000

*In bushels.

Cincinnati

Note: In bushels. Source: Cincinnati Board of Trade.*

Early & Daniel Co.	2,000,000
Cincinnati Co.	1,600,000
Cooperative Mills	750,000
4 smaller elevators operated in connection with industries	1,410,000
Totals	5,760,000

Eastern Canadian

Note: In bushels. Source: Board of Grain Commissioners.

Collingwood, Ont.	2,000,000
*Depot Harbour, Ont.	1,000,000
Goderich, Ont.	1,600,000
Humberstone, Ont.	2,000,000
Kingston, Ont.	1,350,000
Midland, Ont.	12,000,000
Owen Sound, Ont.	4,000,000
Port Colborne, Ont.	6,250,000
Port McNicoll, Ont.	5,500,000
Prescott, Ont.	1,500,000
Barrie, Ont.	1,000,000
Toronto, Ont.	4,000,000
Walkerville, Ont.	1,225,000
Montreal, Que.	15,913,000
Lauzon, Que.	4,000,000
Sorel, Que.	1,000,000
Three Rivers, Que.	1,000,000
Halifax, N. S.	2,200,000
St. John, N. B.	500,000
West St. John, N. B.	1,175,000
Total	71,113,000

*Not licensed.

Chicago (Public)

Note: In bushels. Source: Chicago Board of Trade

Regular warehouses for storage of grain under the rules of the Chicago Board of Trade on Jan. 3, 1936, with capacities in bushels:

Under state supervision, regular for delivery on Chicago Board of Trade contracts:

J. J. Badenoch Co.	
*Badenoch (part of)	450,000
Total, state supervision	450,000

*Under state supervision, but not regular for delivery on Board of Trade contracts.

Under federal license; certificates accepted for delivery on Chicago Board of Trade contracts under Commodity Exchange Act, section 5A (7):

Illinois Grain Terminal Co., Dunbar	2,244,000
Norris Grain Co.	
Norris Elevator	1,150,000
Calumet Elevator	1,500,000
Wabash Elevator	1,500,000
*Elevator J	700,000
General Mills, Inc., Star Grain Division—Rialto Elevator	2,110,000
Santa Fe Elevator Corp., Santa Fe Elevator	1,600,000
Cargill, Inc.	
C.&N.W. Terminal & Annex	14,207,000
Continental Grain Co.	
Continental Elevator A & B	1,500,000
F. G. Ward & R. Bacon Grain Co.	
Keystone Elevator	1,700,000
Farmers Grain Dealers Assn. of Iowa (Co-op.)	
*New York Central	1,000,000
Bratten Grain Co. *Dearborn	700,000
Rosenbaum Bros. *Bell Elevator	150,000
Spencer Kellogg & Sons, Inc.	
*Spencer Kellogg	900,000
Total, federal license	37,818,000
Total, all public elevators	38,268,000

*Federal license, but not regular for delivery on Chicago Board of Trade contracts.

PREVIOUS TOTALS

1918	24,040,000	1931	31,437,000
1919	26,781,000	1932	32,837,000
1920	27,415,000	1933	38,418,000
1921	26,783,000	1934	38,487,000
1922	27,212,000	1935	38,268,000
1923	27,358,000	1937	32,040,000
1924	27,600,000	1938	32,012,000

Canadian Upper Lake

Note: In bushels. Source: Board of Grain Commissioners.

FORT WILLIAM

On the water front—	
Can. Consolidated Grain Co., Ltd.	1,710,000
Federal Grain Limited	1,600,000
Fort William Elevator Co., Ltd.	1,750,000
Ballanca Grain Co., Ltd.	1,710,000
Lakehead Terminals, Ltd.	1,000,000
National Grain Co., Ltd.	1,710,000
*Northland Terminals, Ltd., "D"	7,500,000
Ogilvie Flour Mills Co., Ltd.	2,000,000
Paterson & Co., Ltd.	4,000,000
Searle Grain Co., Ltd.	1,000,000
Western Grain Co., Ltd.	1,000,000
Inland—	
*Fort William Elevator Co., Ltd.	40,000
*D. L. Dole	30,000
National Grain Co., Ltd.	40,000
*J. Davidson	10,000
Ogilvie Flour Mills Co., Ltd.	100,000
Total	17,410,000

FORT ARTHUR

On the water front—	
Can. Consolidated Grain Co.	1,500,000
Eastern Terminal Elev. Co., Ltd.	1,500,000
Canada Malting Co., Ltd.	1,700,000
Federal Grain Limited	1,500,000
Manitoba Pool Elevators, No. 1	1,500,000
Manitoba Pool Elevators, No. 2	1,400,000
Manitoba Pool Elevators, No. 3	2,000,000
McCabe Grain Co., Ltd.	1,200,000
Manitoba Pool Elevators, No. 1	1,150,000
Sask. Pool Terminals, Ltd., No. 1	1,441,114
Manitoba Pool Elevators, No. 6	7,200,000
Sask. Pool Terminals, Ltd., No. 7	9,000,000
Superior Elevators Co., Ltd.	900,000
United Grain Growers Terminals, Ltd.	1,500,000
Total	14,387,114
Grand total	31,797,114

*Not licensed.

Detroit

Note: In bushels. Source: Detroit Board of Commerce.

Hansel Flour Mills	1,000,000
H. W. Rickel & Co.	1,000,000
Froedtert Grain & Malting	500,000
Miscellaneous	100,000
Totals	2,600,000

Duluth-Superior

Note: In bushels. Source: Duluth Board of Trade.

General Mills, Inc., Elevator Div.	3,300,000
Globe Elevator Co.	10,000,000
Great Northern Elevator Co. (8 and Annex)	12,000,000
Itasca Elevator Co.	2,400,000
Cargill, Inc.	3,200,000
Capitol Elevator Co.	4,000,000
King Midas Flour Mills	1,100,000
Duluth Universal Milling Co.	25,000
Farmers Union Grain Terminal	1,000,000
Occidental Terminal Co.	1,500,000
Norris Grain Co.	1,500,000
Total	35,025,000

Enid

Note: In bushels. Source: Enid Board of Trade.

Continental Grain Co.	1,500,000
Commerce Cooperative Assn.	15,500
Enid Elevator Corp.	1,000,000
Fenquay Grain Co.	140,000
Gem Mills	40,000
General Mills, Inc.	3,100,000
Goodholm Grain Co.	35,000
Johnston Grain Co.	315,000
Palacek Mills	25,000
Pillsbury Mills, Inc.	1,600,000
Salina Terminal Elevator	1,300,000
Union Equity	11,125,000
Total	15,140,500

Evansville, Ind.

Note: In bushels. Source: Chamber of Commerce.

Igleheart Brothers, Incorporated	1,500,000
Charles Nunn & Sons Milling Co.	175,000
Evansville Grain Cooperative, Inc.	195,000
J. A. McCarty Seed Co.	60,500
E. H. Morris Elevator	100,000
Total	2,070,500

Fort Worth

Note: In bushels. Source: Fort Worth Grain & Cotton Exchange.

Dexter Mills	400,000
Burrus Mill & Elevator Co.	7,500,000
Frank Bailey Grain Co.	300,000
Ultimate Elevators Co. of Texas—	
Katy Plant	3,600,000
Rock Island Plant	3,200,000
Kimbell Milling Co.	5,000,000
Professors Grain Corp.	1,000,000
Continental Grain Co.	400,000
Interstate Grain Corp.	1,000,000
Great West Grain Co.	100,000
Universal Mills	1,000,000
Feed mills and misc. storage	1,800,000
Total	27,600,000

Galveston

Note: In bushels. Source: Galveston Cotton Exchange and Board of Trade.

Elevator B—Galveston Wharf Co.	1,600,000
Star Mill—Texas Star Flour Mills	500,000
Sunset—Sunset Elevator Co.	1,000,000
Houston	
Houston Public Elevator	3,500,000
Arrow Mills	1,500,000
Port Arthur	
KCS Elevator	500,000
Total	12,600,000

Hampton Roads, Norfolk and Newport News, Va.

Note: In bushels. Source: The Northwestern Miller.

Norfolk Municipal, operated by Norfolk & Western	750,000
Total	750,000

Hutchinson

Note: In bushels. Source: Hutchinson Board of Trade Assn.

Geo. E. Gano Grain Corp.	2,500,000
Security Elevator Co., "A"	2,400,000
Valley Grain Co.	500,000
C. I. Jennings Grain Co.	1,100,000
Farmers Co-op. Consolidated Co.	3,000,000
Western Terminal Elevator Co.	1,500,000
Collingwood Grain Co.	1,800,000
Kenoil Grain Co.	400,000
Davidson Grain Co.	300,000
Milton A. Boese Grain Co.	150,000
Total	13,600,000
Private Elevators and Mills	
Security Elevator "B"	25,000
Wm. Kelly Milling Co.	1,000,000
Commander-Larabee Milling Co.	175,000
Total	1,700,000
Total elevator capacity	15,300,000

Indianapolis

Note: In bushels. Source: Indianapolis Board of Trade.

Acme-Evans Co.	1,250,000
Cleveland Grain Co.	1,750,000
Early & Daniel Co.	1,000,000
Noblesville Milling Co.	700,000
Glidden Co.	2,500,000
National Starch Co.	250,000
Indiana Grain Cooperative, Inc.	2,250,000
Kiser Milling Co.	400,000
Total	9,400,000

Memphis

Note: In bushels. Source: Memphis Merchants Exchange.

Municipal Elevator	1,750,000
Quaker Oats Co.	1,000,000
Seven miscellaneous	1,250,000
	4,000,000

Nashville

Note: In bushels. Source: Nashville Grain Exchange.

Continental Grain Co. (1)	1,100,000
Gillette Grain Co.	400,000
(1) Elevators for miscellaneous storage and operated in connection with industries	725,000
Total	1,125,000

Kansas City, Mo.

Note: In public and private elevators. In bushels. Source: Kansas City Board of Trade.

Alton Elevator—Salina Terminal Elevator Co.	1,000,000
Burlington—Norris Grain Co.	1,500,000
Cheesebrough Elevator Co.	500,000
C. G. W., Great Western Elevator—Walcott & Lincoln Co.	1,000,000
Corn Products Refining Co.	500,000
Elevator "A," Santa Fe—Tex-O-Kan Flour Mills Co.	12,000,000
K.C.S. Norris Grain Co.	1,000,000
Kansas-Missouri—Continental Grain Co.	1,500,000
Katy Elevator—Kansas Grain Co.	1,500,000
Mid-Continent—Mid-Continent Grain Co.	750,000
Milwaukee Elevator—Cargill, Inc.	1,500,000
Norris Elevator—Norris Grain Co.	1,000,000
River-Rail—Hart-Bartlett-Sturtevant Grain Co.	1,000,000
Rock Island Elevator—Simonds-Shields-Theis Grain Co.	1,000,000
Wabash Elevator—Uhlmann Grain Co.	4,100,000
Feed mills, smaller elevators (14)	1,167,000
	45,117,000
FLOUR MILL ELEVATORS	
Continental Baking Co.	500,000
Kansas Flour Mills Co.	1,312,000
Larabee Flour Mills Co.	1,100,000
Mallinckrodt Flour Milling Co.	600,000
Rodney Milling Co.	3,450,000
Southwestern (Standard Milling Co.)	1,000,000
United Mills	400,000
Waggoner-Gates Milling Co. (Independence, Mo.)	350,000
General Mills, Inc., Central Div.	4,500,000
	13,112,000
Kansas City total	61,112,000

Kansas Mills

Note: In bushels. Source: The Northwestern Miller.

Town	No. mills	At mill	Supplementary
Abilene	1	1,000,000	350,000
Arkansas City	1	475,000	35,000
Atchison	2	2,000,000	2,100,000
Buhler	1	350,000	15,000
Cherryvale	1	150,000	
Claflin	1	200,000	35,000
Clay Center	1	125,000	
Colby	1	150,000	150,000
Coffeyville	1	425,000	40,000
Concordia	1	150,000	
Ellinwood	1	275,000	75,000
Fort Scott	1	250,000	75,000
Great Bend	2	1,100,000	85,000
Hays	1	300,000	300,000
Hudson	1	150,000	150,000
Hutchinson	1	1,700,000	
Lincoln	1	150,000	
Kingman	1	300,000	300,000
Lamed	1	150,000	
Lawrence	1	475,000	
Leavenworth	1	250,000	
Liberal	2	650,000	100,000
Louisburg	1	300,000	300,000
M. Florence	1	150,000	150,000
Moundridge	1	100,000	75,000
Newton	4	2,700,000	2,350,000
Ottawa	1	150,000	
Russell	1	150,000	75,000
Salina	4	2,000,000	2,000,000
Sterling	1	150,000	
Topeka	2	400,000	2,000,000
Wellington	1	400,000	700,000
Wichita	1	150,000	
Wilson	1	150,000	37,500
Winfield	1	427,000	850,000
	52	20,900,000	13,950,000

New Orleans

Note: In bushels. Source: New Orleans Board of Trade, Ltd.

Dock Board Elevator	1,022,000
New Basin—J. T. Gibbons	550,000
Total	1,572,000

Philadelphia

Note: In bushels. Source: Commercial Exchange of Philadelphia.

Port Richmond	1,500,000
Girard Point	1,225,000
Falk Elevator, No. 1	265,000
Twentieth Street	225,000
Tidewater Elevator	145,000
Totals	3,360,000

Milwaukee

Note: In bushels. Source: Milwaukee Grain Exchange.

Archer Daniels Midland Co. (1)	420,000
Cargill, Inc.	1,000,000
Cheshire Seed Co.	125,000
Froedtert Gr. & Malting Co.	10,315,000
Kamm, P. G., Co.	250,000
Krause, Chas. A., Milling Co.	1,500,000
Kurth Malting Co.	1,700,000
Ladish Malting Co.	7,000,000
Noack, J. L.	100,000
Pabst Brewing Co.	1,400,000
Red Star Yeast & Products Co.	75,000
Rice, J. Walter	35,000
Riehe Co., The (1)	875,000
Schlitz, Jos., Brewing Co.	2,250,000
Stratton Grain Co. (1)	1,000,000
Tweedale, L., Seed Co.	165,000
Wuechter, D. D., & Sons, Inc.	875,000
Wisconsin Malting Co.	1,500,000
Zinn Malting Co.	1,600,000
Total	19,170,000

Minneapolis

Note: In bushels. Source: Minneapolis Grain Exchange.

"REGULAR" ELEVATORS	
Archer Daniels Midland Co. (1)	14,411,250
Bunge Elevator Corp.	1,500,000
Cargill, Inc. (2)	4,837,000
Cereal Grading Co.	916,000
Continental Grain Co.	1,500,000
General Mills, Inc.	150,000
Hallet & Carey Elevator Co.	1,300,000
International Milling Co.	1,250,000
Leval & Co., Inc.	4,000,000
Osborne-McMillan Elevator Co.	1,500,000
Russell-Miller Milling Co.	4,200,000
Searle Grain Co.	2,000,000
Spencer Kellogg & Sons, Inc.	1,000,000
Van Dusen Harrington Co. (1)	12,510,000
Victoria Elevator Co.	650,000
Total	52,600,250
PUBLIC BUT NOT "REGULAR"	
Farmers Union Grain Co., Terminal Assn.	1,400,000
General Mills, Inc., Central Div.	145,000
Pillsbury Mills, Inc.	500,000
Total	1,445,000
PRIVATE ELEVATORS	
Archer-Daniels-Midland Co. (1)	6,262,500
Atkinson Milling Co.	450,000
Cargill, Inc.	255,000
Commander-Larabee Milling Co. (2)	2,728,000
Falk & Co., Inc., Northwest Linseed Div.	150,000
Fleischmann Malting Co. (three)	3,250,000
Froedtert Grain & Malting Co.	1,150,000
General Mills, Inc., Central Div. (2)	5,227,000
Hales & Hunter (Belco No. 1 and 2)	1,500,000
Kurth Malting Co.	1,000,000
Minnesota Linseed Oil Co. (two)	1,300,000
Pillsbury Mills, Inc. (3)	7,950,000
Rahr Malting Co.	1,500,000
Ralston Purina Co.	250,000
Spencer Kellogg & Sons, Inc. (2)	1,725,000
Stanford Milling Co.	1,150,000
Van Dusen Harrington Co. (five)	2,410,000
8 additional feed mills and miscellaneous storage	831,000
Total	18,561,500
Grand total	91,466,750

Oklahoma Mills

Note: In bushels. Source: The Northwestern Miller.

Town—	No. mills	At mill	Supplementary
Ada	1	11,000	
Altus	1	420,000	90,000
Alva	1	600,000	1,150,000
Apache	1	10,000	
Ardmore	1	151,000	
Blackwell	1	425,000	10,000
Chickasha	1	500,000	100,000
Custer City	1	18,000	
El Reno	2	1,325,000	85,000
Enid	2	2,500,000	
Geary	1	100,000	
Hennessey	1	115,000	32,000
Jefferson	1	140,000	24,000
Kingfisher	1	1,250,000	
Okeene	1	325,000	175,000
Oklahoma City	2	1,325,000	1,315,000
Ponca City	1	450,000	
Shawnee	1	1,000,000	
Stillwater	1	150,000	175,000
Tulsa	2	700,000	100,000
	24	13,138,000	1,458,000

Nebraska Mills

Note: In bushels. Source: The Northwestern Miller.

Town—	No. mills	At mill	Supplementary
Chadron	1	120,000	
Crete	1	1,600,000	125,000
Fairbury	1	45,000	84,000
Fremont	1	175,000	
Grand Island	1	320,000	76,000
Hastings	1	180,000	
Holdrege	1	100,000	45,000
Humboldt	1	85,000	24,000
Lexington	1	35,000	200,000
Lincoln	1	1,000,000	
Neligh	1	60,000	
Norfolk	1	20,000	1,100
Omaha	1	2,500,000	
Scottsbluff	1	60,000	85,000
Wymore	1	40,000	15,000
	17	6,817,000	656,000

New York

Note: In bushels. Source: The Northwestern Miller.

New York State Canal Grain Elevator (Port of N. Y. Authority)	2,000,000
West Shore, Weehawken	2,000,000
Lehigh Valley R. R.	450,000
Total	4,450,000

Omaha

Note: In bushels. Source: Omaha Grain Exchange.

Allied Mills, Inc.	196,000
Archer-Daniels-Midland Co.	1,750,000
Butler-Welsh Grain Co.—	
Gateway	750,000
Milwaukee "A"	150,000
Cargill, Inc.	10,000,000
Colorado Milling & Elevator Co.—	
Omaha Flour Mills Division	625,000
Continental Grain Co.	1,250,000
Interstate Grain Corp. "B" "C"	1,500,000
Loveland Elevator Co.	450,000
Maney Milling Co. "A"	850,000
Kellogg Co.	115,000
Nebraska Consolidated Mills Co.	400,000
Nebraska-Iowa Grain Co.	1,500,000
Omaha Elevator Co.	2,500,000
Rosenbaum Brothers	1,000,000
Sinclair-Bishop Grain Co.	300,000
Updike Grain Corp. "D"	2,000,000
Westcentral Group, Grain Co. "A"	1,750,000
Total	18,100,000

St. Louis

Note: In bushels. Source: St. Louis Merchants Exchange.

Cargill "E"—Cargill, Inc.	1,000,000
Cargill "F"—Cargill, Inc.	150,000
Continental Grain Co.—	
Missouri Pacific	1,000,000
Elevator "G"	700,000
Continental	700,000
Brooklyn	750,000
Terminal	100,000
Cutsell—Cutsell Seed Co.	350,000
Burlington—Norris Grain Corp.	1,416,000
Mississippi—Mississippi Elev. Co. (Alton, Ill.)	350,000
Anheuser-Busch Brewing Assn.	1,500,000
Checkerboard "A"—Checkerboard Elevator Co.	1,000,000
Feed mills—Smaller storage (14)	1,400,000
	10,916,000
ST. LOUIS FLOUR MILL STORAGE	
Swaney Mills	100,000
Valier & Spies Milling Corp.	1,050,000
Russell-Miller Milling Co. (Blanchard-Tilton Mfg. Co., Alton, Ill.)	1,315,000
J. F. Imhe Milling Co. (Belleville, Ill.)	350,000
	4,015,000
Total	15,931,000

Seattle

Note: In bushels. Source: Seattle Grain Exchange.

	Bulk	Sacked
Hanford Street Elevator	3,100,000	
Hanford Street Dock		350,000
Bell Street Dock		350,000
Fisher Flouring Mills Co.	2,600,000	500,000
Novelty Mill Co.	35,000	60,000
Chas. M. Lilly Co.	350,000	120,000
Albers Bros. Milling Co.	700,000	800,000
Totals	6,785,000	1,230,000

Portland, Oregon

Note: In tons. Source: Portland Grain Exchange.

Albers No. 1	5,000
Albers No. 2	5,000
Albers No. 3	5,000
Crown Mills Dock	15,000
Creek Mills Elevator	20,000
East Outlard Dock & Elevator	17,000
Irving Dock	12,000
Northwestern Dock and Elevator	10,000
Quaker Oats Dock & Elevator	15,000
Columbia Milling Co.	4,500
Terminal No. 4 Elevator	65,000
Terminal No. 4 Dock	17,000
Terminal Flour Mills Co.	9,700
Total	185,300

St. Joseph

Note: In bushels. Source: St. Joseph Grain Exchange.

Commander-Larabee Milling Co.	1,750,000
Dannen Grain & Milling Co.	1,375,000
Hart-Bartlett-Sturtevant Grain Co.	1,000,000
Quaker Oats Co.	1,240,000
Russell-Miller Milling Co.	900,000
Stratton Grain Co.	2,000,000
Feed mills and miscellaneous storage	162,000
Total	10,877,000

Tacoma

Note: In bushels. Source: Tacoma Merchants' Exchange.

	Bulk	Sacked
General Mills, Inc., Sperry Division	1,000,000	
Port of Tacoma	600,000	
Albers Bros Warehouse	10,000	400,000
Totals	1,610,000	400,000

Texas Mills

Note: In bushels. Source: The Northwestern Miller.

Town—	No. mills	At mill	Supplementary
Amarillo	1	1,200,000	14,000
Brownwood	1	400,000	
Clifton	1	800,000	
Dallas	1	1,250,000	
Denton	2	850,000	12,000
El Paso	1	750,000	
Fort Worth	3	4,000,000	110,000
Gainesville	1	400,000	
Galveston	1	500,000	
Graham	1	400,000	
Greenville	1	1,250,000	
Houston	1	1,500,000	1,000,000
Jacksboro	1	175,000	
New Braunfels	1	400,000	
Paris	1	450,000	
Plainview	1	1,000,000	12,000
San Antonio	1	300,000	
Seguin	1	300,000	
Sherman	1	1,000,000	
Stamford	1	25,000	
Wichita Falls	1	1,700,000	
	24	14,400,000	1,137,000

Toledo

Note: In bushels. Source: Toledo Board of Trade.

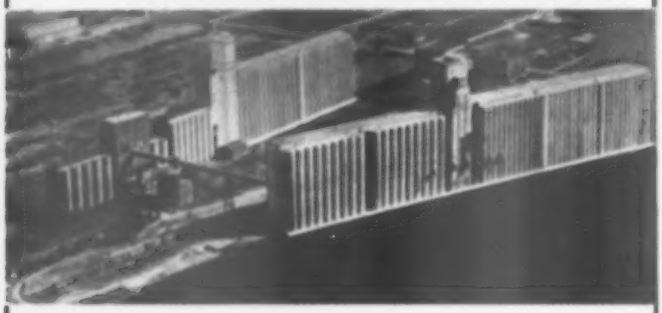
Cargill, Inc.	1,150,000
B. & O. Elevator (Norris Grain Co.)	400,000
East Side Iron—East Side Iron Elevator Co. (Norris Grain Co.)	1,500,000
National Biscuit Co., Inc., Toledo Mill	3,500,000
Anderson Elevator Co.—	
Massillon, Ohio	400,000
Toledo	400,000
Nine elevators operated for storage grain and soybeans	1,400,000
Total	13,000,000

Wichita

Note: In bushels. Source: Wichita Board of Trade.

Consolidated Flour Mills Co.	1,000,000
Farmers Co-op. Commission	1,750,000
Kansas Milling Co.	1,125,000
Pillsbury Mills, Inc.	1,250,000
Public Terminal Elevator Co.	4,000,000
General Mills, Inc., Central Div.	4,500,000
Wichita Flour Mills Co.	1,000,000
Wichita Terminal Elevator, Inc.	5,750,000
Feed mills and misc. storage	145,000
Total	21,570,000

GTA's modern 4,500,000 bushel terminal elevator at head of the Great Lakes



Choice Milling Wheat for America's Bread

FARMERS UNION GRAIN TERMINAL ASSOCIATION specializes in handling the wheat crop for 150,000 grain farmers in the great Northwest.

Much of this crop is from the choice spring wheat areas of Western North Dakota and Montana.

Wheat that meets exacting milling requirements as to quality and protein can be furnished from modern terminal and subterminal elevators at Superior-Duluth, Minneapolis, St. Paul, Lewistown, Shelby, Great Falls and Spokane.

Western terminals are strategically located to serve West Coast mills with fancy Montana wheat from the Great Falls area.

Farmers Union

GRAIN TERMINAL ASSOCIATION

Marketing and Merchandising Grain for 150,000 Producers

ST. PAUL - - - - - - - MINNEAPOLIS

Vancouver

Note: In bushels. Source: Vancouver Merchants Exchange and Canada Wheat Board.

Alberta Pool Elevators, Ltd., No. 1	3,150,000
National Harbors Board, No. 7	1,650,000
United Grain Growers Terminals, Ltd.	2,705,000
Midland Pacific Terminal, Ltd.	1,500,000
National Harbors Board No. 1	1,883,500
Pacific Elevators, Ltd.	1,245,000
Brackman-Ker Milling Co.	30,000
Buckerfield's, Ltd., No. 1	620,000
McLellan & McCarter, Ltd.	15,000
United Milling & Grain Co., Ltd.	35,000
United Distillers, Ltd.	35,000
Marpole Grain Co. and Richmond Feed, Ltd.	7,000
James Richardson & Sons, Ltd.	800,000
Total	13,245,500
New Westminster Elevator	
Searle Terminal	750,000
Victoria Elevator	
Victoria Terminal	1,000,000

Winnipeg

Note: In bushels. Source: Board of Grain Commissioners for Canada.

WINNIPEG	
Ogilvie Flour Mills Co., Ltd.—Two mills	675,000
Canada Malting Co., Ltd.—Private terminal	1,245,000
Laing Bros., Ltd.—Private country	10,000
The Sherwin Williams Co. of Canada, Limited—Mill	75,000
*Manitoba Feed Supply Co.—Country elevator	10,000
Federal Grain, Ltd.—Country elevator	134,000
Sun Line Mills, Ltd.—Country elevator	11,000
Steele, Briggs Seed Co., Ltd.—Mill	5,000
Red River Grain Co., Ltd.—Country elevator	11,000
Economy Grain & Feed Co.—Country elevator	10,000
Total	2,247,000
TRANSCONA	
Dominion Malting Co., Ltd.—Private terminal	1,600,000
NORTH TRANSCONA	
Eastern Terminal Elevator Co., Ltd.—Semi-public terminal	1,000,000
ST. BONIFACE	
Dominion Linseed Oil Co., Ltd.—Mill	70,000
Purity Flour Mills, Ltd.—Mill	1,000,000
Red River Grain Co., Ltd.—Two Country elevators	275,000
McCabe Bros. Grain Co., Ltd.—Country elevator	90,000
St. Boniface Grain & Feed Co., Ltd.—Country elevator	192,500
Central Grain Co.—Country elevator	32,000
Searle Grain Co., Ltd.—Country elevator	100,000
Manitoba Pool Elevators—Country elevator	25,000
*Anchor Grain & Feed Co., Ltd.	45,000
Dominion Grain & Feed Co.—Private Country	12,000
Total	1,841,500
Grand total	6,921,000

*Not licensed.

Note: Temporary storage facilities not included.

Western Canada Grain Storage

Note: Port Arthur, Fort William, Keewatin, Kenora and points in Manitoba, Alberta, Saskatchewan and British Columbia, by crop years in bushels. Source: Board of Grain Commissioners for Canada.

1949-50	497,378,870	1932-33	241,324,200
1948-49	483,723,470	1931-32	338,633,160
1947-48	398,911,420	1930-31	356,542,210
1946-47	431,527,920	1929-30	305,744,790
1945-46	475,739,870	1928-29	295,744,790
1944-45	408,832,080	1927-28	242,608,200
1943-44	411,359,787	1926-27	238,638,160
1942-43	512,843,896	1925-26	228,790,620
1941-42	509,353,319	1924-25	277,916,620
1940-41	424,493,947	1923-24	218,894,620
1939-40	341,825,778	1922-23	295,827,420
1938-39	340,180,420	1921-22	197,483,420
1937-38	338,941,820	1920-21	197,033,620
1936-37	340,730,120	1919-20	182,481,870
1935-36	341,976,680	1918-19	189,488,864
1934-35	343,185,680	1917-18	172,370,000
1933-34	342,935,480	1916-17	183,146,000

Wheat Movement at U.S. Centers

Note: By calendar years, in bushels, 000's omitted. Source: Local grain exchanges.

RECEIPTS

	1948	1946	1947	1946	1945	1944	1943	1942	1941	1940
Baltimore	19,243	44,139	25,296							
Chicago	18,843	26,616	44,115	25,217	37,787	67,675	49,166	23,129	22,669	29,494
New York	34,746	16,546	14,417	31,284	33,786	13,759	19,848	17,964	16,744	16,330
Minneapolis	146,278	142,811	157,068	117,862	126,149	148,175	208,976	138,768	134,375	115,379
Duluth-Superior	123,863	113,893	192,417	147,861	145,330	126,139	87,387	18,973	62,844	64,506
Boston	7,474		8,714	6,787	11,610	3,111	6,161	1,243	7,035	4,101
Toledo	19,631	24,963	22,414	23,264	35,280	130,946	121,955	115,677	58,861	13,453
Indianapolis	8,417	16,461	7,884	16,712	18,084	16,245	17,286	5,373	5,187	4,813
St. Joseph	14,551	14,128	18,112	18,622	18,746	37,356	27,078	19,616	7,909	8,274
Omaha	58,854	66,776	65,996	27,452	25,673	29,683	27,356	16,359	21,739	14,961
Kansas City	111,751	154,631	153,154	176,334	171,442	121,324	127,496	73,839	94,761	48,924
St. Louis	26,499	37,467	27,744	18,274	21,638	28,978	19,821	11,885	14,875	18,197
Philadelphia	24,759	26,539	23,446	24,287	47,247	18,326	22,127	4,492	4,829	26,862
Cincinnati		3,845					8,794		3,189	3,276
Milwaukee	4,216	4,517	4,862	3,444	3,894	6,842	3,494	1,489	4,833	3,479
New Orleans	4,451	12,466	7,447	3,890		*441	126	*112	2,891	188
Fort Worth	*16,147	*27,483	*22,411	*18,268	*17,871	*18,618	*14,788	*10,161	11,118	8,014
Seattle*	14,384	11,707	14,684	12,187	14,137	8,478	10,836	7,772	8,843	7,264
Tacoma*	8,821	7,849	8,525	12,096	8,312	8,244	9,482	6,593	8,941	8,912
Portland, Ore.	21,187	19,738	21,799	26,414	18,789	12,189	12,224		14,791	18,283
Buffalo†	84,874	61,354	101,243	82,442	106,754	118,963	116,837	74,226	48,566	81,427
Memphis	86	48	437	187	1,221	471	829		869	284
Norfolk	2,289	1,924								

SHIPMENTS

	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
Chicago	28,741	24,951	34,888	18,929	26,239	28,021	43,177	24,270	15,445	36,687
New York	11,171	16,277	5,761	11,683	36,809	13,124	21,176	26,123	22,844	16,766
Minneapolis	18,013	18,228	65,843	48,279	84,845	101,433	117,714	48,832	32,887	26,178
Duluth-Superior	118,888	99,572	99,515	116,717	146,830	136,261	86,265	15,855	15,896	16,784
Boston	8,628		3,295	8,178	12,910	2,893	6,759	1,583	7,232	4,158
Toledo	14,575	15,484	6,808	8,216	29,749	16,241	6,945	3,624	6,248	5,798
Indianapolis	4,629	6,898	4,869	6,128	6,382	8,716	8,557	1,419	1,794	1,736
St. Joseph	10,113	8,452	7,712	8,878	11,381	8,561	15,918	8,293	2,891	2,224
Omaha	23,968	27,449	23,876	24,198	22,583	27,768	37,812	8,722	8,792	7,826
Kansas City	71,791	106,430	109,573	98,873	88,543	67,276	107,266	42,609	51,591	33,871
Baltimore	27,638	45,741	17,831	28,574	79,832	14,802	11,565	53,145	14,819	11,521
Philadelphia	25,412	26,622	21,272	35,843	46,561	8,773	11,183	1,783	3,179	11,574
Cincinnati							4,224		2,649	3,473
Milwaukee	4,571	2,832	4,862	3,141	7,141	8,295	3,818	1,631	1,748	1,748
New Orleans	19,512	2,430	21,669	22,324		*781	*468	*42	193	274
Portland, Ore.	24,189	24,864	21,744	21,476					1,351	4,651
Fort Worth	*15,547	*12,787	11,099	*9,724	*12,842	*18,188	*12,991	*4,991	5,441	1,819
Norfolk	2,228	4,858								

*Carloads, 000's not omitted. †Lake receipts only. ‡Includes lake shipments. ¶Waterbound.

Flour Movement at U.S. Centers

Note: By calendar years in sacks, 000's omitted. Source: Local grain exchanges.

RECEIPTS

	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
Baltimore	1,449	1,474	7,157	8,403	6,284	3,732	3,414	2,972	1,921	1,264
Chicago	25,904	24,682	27,387	37,003	38,841	35,264	23,548	23,753	18,744	21,564
Fort Worth		16,196		2190						
Milwaukee	1,495	1,472	1,271	1,158	979	1,166	1,417	1,831	1,816	1,846
New York	19,884	15,236	18,186	16,824	26,687	20,186	17,143	12,751	15,657	18,131
Philadelphia		2,584		2,691	3,738	2,418	3,789	2,454	3,245	5,548
Portland	1,874	1,264	1,994							
Tacoma		1,442	1,322			601	806	717	662	719
Seattle‡		1,241	911			1,546	1,447	1,198	1,419	1,621

SHIPMENTS

	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
Baltimore	1,647	1,189	4,662	*						
Chicago	8,732	10,935	15,574	16,464	3,168	8,319	10,831	11,125	11,649	11,139
Fort Worth		2150		18,343						
Milwaukee	482	331	518	491	273	494	384	435	719	551
Minneapolis	11,428	12,140	14,881	14,337	14,087	13,113	12,728	11,819	11,587	11,157
New York	5,842	8,287	14,329	11,128	*	*	*	*	*	3,820
Philadelphia		3,984		2,788	2,142	2,663	2,622	1,165	31	20
Portland	1,441	1,429	†2,282	†1,313	*	*	*	1,164	1,744	1,784
St. Joseph					2,847		2,283	2,119	1,172	1,704

*Not available. †Cars. ‡Waterbound.

Soybean Movement at Centers

Note: In bushels. Source: Local Grain Exchanges.

RECEIPTS

	1947	1946	1945
Baltimore	62,643	344,780	1,468,352
Buffalo*		76,531	296,000
Norfolk		151,763	2,019,872
Chicago	13,823,000	14,624,000	18,118,000
Indianapolis	4,171,000	3,523,000	7,084,000
Kansas City		4,953,500	6,734,000
Milwaukee	84,000		5,000
Minneapolis	4,196,100	7,202,000	5,717,100
New Orleans		168,352	3,864,592
New York	148,127	816,262	181,484
Omaha	1,501,000	3,338,000	2,194,000
Philadelphia	1,719,761	1,761,000	1,400,405
St. Joseph	1,743,000	3,495,000	3,018,000
St. Louis	3,262,500	4,159,613	3,816,181
Toledo	8,281,700	8,754,000	3,782,859
Wichita	651,000	833,000	725,199

SHIPMENTS

	1947	1946	1945
Chicago	8,431,000	6,078,000	8,104,000
Indianapolis	2,487,000	3,041,000	5,705,199
Kansas City		1,482,481	1,134,000
Baltimore	8,787	238,679	1,446,631
New Orleans	228,822	812,848	6,452,258
Minneapolis	3,894,100	3,888,200	3,887,150
New York		140,000	76,000
Omaha	608,814	587,334	890,758
Philadelphia	678,124	842,000	1,406,305
St. Joseph	71,750	12,000	81,000
Toledo	2,332,100	1,174,200	2,285,188
Wichita		12,000	18,000
Norfolk		816,831	1,464,594

*Lake receipts only.

Lake Shipments

Note: From Duluth-Superior, by calendar years, in bushels, 000's omitted. Source: Duluth Board of Trade.

	DOMESTIC GRAIN					Flax
	Wheat	Corn	Oats	Rye	BYP	seed
1949	100,435	14,867	11,280	719	11,047	4,518
1948	91,847	8,508	5,675	783	5,883	10,882
1947	85,362	1,669	8,687	...	6,483	4,244
1946	96,189	...	11,948	...	3,862	2,139
1945	137,300	3,732	11,845	...	4,835	5,875
1944	108,021	304	1,831	60	485	4,897
1943	84,303	1,806	316	491	3,891	7,780
1942	18,159	11,323	849	3,148	3,549	8,823
1941	45,913	28,205	1,833	3,756	4,759	3,867
1940	46,782	13,531	4,257	3,127	3,867	3,148
1939	46,035	11,586	13,552	4,448	6,785	4,381
1938	41,918	8,242	11,627	4,879	5,708	1,491
1937	31,896	5,573	8,315	3,355	3,140	970
1936	8,131	2,238	6,598	2,099	4,583	361
1935	14,823	1,638	8,613	2,787	7,261	1,479
1934	25,542	7,144	8,498	1,189	6,867	237
1933	42,360	3,893	4,358	3,153	4,353	1,991
1932	29,861	24	835	2,979	3,637	3,948
1931	41,739	1,314	3,859	1,976	3,871	3,593

Canadian Wheat Inspections

Note: At Winnipeg and other points in western Canada, by crop years, ending July 31, in bushels. Source: Board of Grain Commissioners for Canada.

1948-49	191,718,000	1919-20	284,186,000
1947-48	235,781,000	1918-19	375,716,133
1946-47	211,805,464	1917-18	276,916,248
1945-46	287,618,000	1916-17	118,118,676
1944-45	414,222,833	1915-16	143,673,023
1943-44	396,382,814	1914-15	118,148,000
1942-43	178,296,584	1913-14	227,362,000
1941-42	206,748,848	1912-13	228,183,684

Suppliers Of Fancy Hard Red Spring Wheat To Discriminating Millers Since 1887

Osborne McMillan Elevator Company

Uniformly Blended Wheats Originating From Our Own Elevators in the Finest Spring Wheat Areas

MINNEAPOLIS — ● — MINNESOTA

Minneapolis Grain Movement

Note: By crop year, ending Aug. 31, 000's omitted. Source: Minneapolis Grain Exchange.

	1946-47	1947-48	1948-49	1949-50	1950-51
RECEIPTS					
Wheat, bu.	168,028	168,248	187,479	116,491	
Corn, bu.	19,017	18,708	24,874	19,111	
Oats, bu.	85,974	83,928	58,259	95,171	
Barley, bu.	81,788	74,136	67,160	80,187	
Rye, bu.	10,864	8,660	4,836	3,778	
Flaxseed, bu.	16,679	25,595	13,263	20,190	
Soybeans, bu.	8,173	6,098	18,584		
Sorgh., tons	33	32	18		
SHIPMENTS					
Wheat, bu.	168,148	167,48	186,476	116,44	
Corn, bu.	18,172	23,587	23,181	24,521	
Oats, bu.	18,262	17,264	20,258	16,949	
Barley, bu.	18,428	11,438	18,843	71,458	
Rye, bu.	7,157	1,668	2,082	4,114	
Flaxseed, bu.	4,487	4,139	4,193	4,244	
Millfeed, tons	181	828	845	850	
Flour, sacks	11,818	14,171	16,159	15,471	
Soybeans, bu.	2,802	3,438			
Sorgh., tons	191	32	48		

Canadian Grain at Buffalo

Note: By calendar years, in bushels, 000's omitted. Source: Buffalo Corn Exchange.

	Wheat	Oats	Barley	Flax'd	Rye
1939	11,512	10,146	425		174
1940	7,211	18,588	1,378	197	1,474
1941	14,332	911			
1942	4,435	2,109	2,411		1,343
1943	32,291	21,441	1,724	460	295
1944	79,039	47,136	3,076	5,014	1,235
1945	60,804	24,817	18,511	7,073	24
1946	20,808	6,216	706	3,417	268
1947	46,784	3,128	3,350	350	1,661
1948	34,687	7,437	288	55	1,476
1949	56,337	3,458	6,144	288	
1950	14,898		880	305	29
1951	12,536		548	606	
1952	56,940	73	3,559		706
1953	24,414	319	272		759
1954	48,713	397	893		

U.S. Dockage in Wheat

Note: Supervisors' samples. 1948 crop. Source: USDA

% of Dockage	Hard red spring cwts	%	Durum cwts	%	Soft durum cwts	%
0	2,742	1	113	15.9	11	7.9
1	1,870	15.5	119	17.1	11	10.8
2	1,776	17.5	784	20.3	11	14.5
3	1,861	15.6	380	14.9	11	19.0
4	1,047	9.1	161	8.2	29	32.0
5	1,380	9.8	161	8.9	22	8.8
6	114	5.7	145	6.6	11	4.9
7	180	3.1	104	3.6	18	4.3
8	141	1.1	81	2.6	11	2.6
9	128	1	40	1.6	11	4.8
10	67	1	22	1.1	1	1
11	38	1	14	1	1	1.3
12	28	1	14	1	1	1.3
13	19	1	11	1	1	1.3
14	12	1	10	1	1	1.3
15	9		7	1	1	1
16	8		5	1	1	1
17	8		3	1	1	1
18	7		2	1		
19	7		1	1		
20	7		1	1	1	1
21	7					
22	7					
23	7					
Total	11,348		2,921		164	

% of Dockage	Hard red winter cwts	%	Soft red winter cwts	%	White cwts	%
0	17,141	16.8	4,444	18.1	1,215	16.1
1	8,137	18.1	127	7.9	883	16.1
2	1,688	8.1	113	7.1	518	8.3
3	347	3.9	34	3	35	3.4
4	124	1.9	14	1	24	2
5	93	1	14	1	4	1.3
6	24	1	4	1	4	1
7	8		3	1		
8	8		1		1	
9	8				1	
10	7				1	
11	7				1	
12	7				1	
13	7				1	
14	7				1	
15	7				1	
16	7				1	
17					1	
18	1					
19					1	
20	1					
21	1					
22						
23						
Total	18,891		4,724		3,943	

New York Canal Grain Receipts and Shipments

Note: New York Canal System is composed of four canals: Erie, Oswego, Cayuga-Seneca and Champlain, by net tons of 2,000 lb. Source: New York Department of Public Works, Albany, N. Y.

	1948 Wheat	1948 Corn	1948 Oats	1948 Barley	1949 Wheat	1949 Corn	1949 Oats
Forwarded from							
Buffalo	44,845	2,414			18,786	21,843	912
Buffalo, via Oswego	1,695				2,362	2,146	
Oswego	153,414	2,169	2,717	6,949	153,197	28,178	
Albany						1,415	
Chicago, via Oswego		1,564					
Duluth, via Oswego	4,191						
Milwaukee, via Oswego	1,225				1,847	448	
Total	205,394	6,146	2,717	6,949	184,474	54,844	912
Received at							
Albany	205,397	6,146	2,717	6,949	184,474	54,497	912
Buffalo, via Oswego						1,415	
New York	1,599				1,860		
Peekskill						15,474	
Total	206,996	6,146	2,717	6,949	186,474	54,844	912

Grain Receipts by Lake at Buffalo

Note: By calendar years, in bushels, 000's omitted. Source: Corn Exchange of Buffalo.

Year—	Wheat	Corn	Oats	Barley	Rye	Flaxseed
1939	84,973	16,199	17,531	3,094	915	2,893
1940	42,314	9,175	19,724	4,599	1,281	10,241
1947	102,343	5,529	10,893	5,015	6006	3,150
1942	83,462	3,663	16,572	3,458	1,608	3,104
1943	186,758	4,527	31,606	5,297	2,183	4,990
1944	188,908	1,328	48,583	4,633	4,538	8,443
1945	119,927	3,450	27,163	20,243	311	13,466
1946	74,224	18,929	9,681	3,279	815	8,426
1947	89,605	24,122	4,352	5,594	5,170	2,968
1948	83,027	22,613	15,619	4,879	3,126	4,723
1949	103,895	26,197	11,942	12,140	4,751	3,149
1950	59,804	21,478	5,548	3,328	3,071	614
1951	56,890	15,484	4,328	5,988	3,068	726
1952	77,394	11,885	3,802	6,748	1,287	715
1953	87,434	4,522	5,183	6,487	3,908	979
1954	80,180	21,008	4,504	4,198	390	271
1955	87,871	28,494	3,248	4,879	3,194	688
1956	96,849	24,591	8,366	2,886	3,388	3,246
1957	127,741	11,347	6,979	7,171	2,640	2,876
1958	148,148	10,162	4,888	6,981	1,688	6,000
1959	138,149	8,894	5,438	15,154	1,729	1,828
1960	110,891	10,629	9,951	15,338	7,724	3,664
1961	120,651	11,666	10,778	18,981	11,438	3,497

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Address _____

City _____ Zone _____ State _____

Minneapolis Grain, Flour and Feed Movement

Note: By calendar years, 000's omitted. Source: Minneapolis Grain Exchange.

RECEIPTS

	Flour, sacks	Millfeed, tons	Wheat (Bushels)	Corn	Oats	Barley	Rye	Flaxseed	Totals, grain
1949	*	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1948	*	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1947	*	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1946	*	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1945	*	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1944	*	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1943	*	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1942	*	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1941	*	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940	*	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1939	*	*	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1937	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1936	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1935	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1934	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1933	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1932	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1931	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1930	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1929	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

*Figures not available.

SHIPMENTS

	Flour, sacks	Millfeed, tons	Wheat (Bushels)	Corn	Oats	Barley	Rye	Flaxseed	Totals, grain
1949	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1937	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1936	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1935	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1934	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1933	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1932	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1931	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1930	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1929	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Shipments of Flour, Millfeed from Minneapolis

Note: For year ending Dec. 31, 1949. By carlots. Source: H. H. Thomas, St. Paul & Sault Ste. Marie R. R.

	Rock Island	C. B.&Q.	C. M. St. P. & P.	Omaha	Great West	Great North.	M. & St. L.	M. N. & S.	North. Pac.	Soo	Totals
Atkinson Milling Co.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
King Midas Mill Co.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Standard Mfg. Co.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pillsbury Mills, Inc.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Russell-Miller M. Co.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Minn. Linseed Oil Co.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
General Mills, Inc.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Misc. feed mills	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arch.-Daniels-M. Co.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spencer Kellogg Co.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total, 1949	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Navigation in Canada

Ports	Opening	Closing
Montreal	[illegible]	[illegible]
Prescott	[illegible]	[illegible]
Kingston	[illegible]	[illegible]
Port Colborne (Canal)	[illegible]	[illegible]
Toronto	[illegible]	[illegible]
Sarnia	[illegible]	[illegible]
Goderich	[illegible]	[illegible]
Wiarton	[illegible]	[illegible]
Owen Sound	[illegible]	[illegible]
Collingwood	[illegible]	[illegible]
Meaford	[illegible]	[illegible]
Midland	[illegible]	[illegible]
Parry Sound	[illegible]	[illegible]
Sault Ste. Marie	[illegible]	[illegible]
Port Arthur	[illegible]	[illegible]
Fort William	[illegible]	[illegible]

Quebec harbor is usually open all winter, but navigation with inner ports and the sea opens on an average about April 16, and closes about Dec. 15. St. John harbor and Halifax harbor are open all the year round, so also are Vancouver, Prince Rupert and the other Canadian ports on the Pacific.

Seattle Grain Receipts

Note: By calendar years, in carlots. Source: Seattle Grain Exchange.

	Wheat	Oats	Barley	Corn	Rye
1949	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1937	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1936	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1935	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1934	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1933	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1932	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1931	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1930	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Tacoma Grain Receipts

Note: By calendar years, in carlots. Source: Tacoma Merchants Exchange.

	Wheat	Corn	Oats	Rye	Barley
1949	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1937	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1936	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1935	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1934	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1933	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1932	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1931	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1930	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Omaha Grain Movement

Note: By calendar years, in bushels, 000's omitted. Source: Omaha Grain Exchange.

RECEIPTS

	Wheat	Corn	Oats	Rye	Barley
1949	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1937	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1936	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1935	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1934	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1933	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1932	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1931	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1930	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1929	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SHIPMENTS

	Wheat	Corn	Oats	Rye	Barley
1949	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1937	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1936	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1935	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1934	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1933	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1932	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1931	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1930	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1929	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

RECEIPTS

1949	Wheat	Corn	Oats	Rye	Barley
January	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
February	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
March	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
May	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
June	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
July	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
August	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
September	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
October	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
November	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
December	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Totals	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SHIPMENTS

1949	Wheat	Corn	Oats	Rye	Barley
January	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
February	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
March	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
May	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
June	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
July	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
August	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
September	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
October	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
November	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
December	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Totals	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Duluth-Superior Lake Shipments of Grain

Note: Domestic and bonded grain and flaxseed from Duluth-Superior to American and Canadian ports in 1949 and by calendar years, in bushels, 000's omitted. **Source: Duluth Board of Trade**

American ports—	Domestic wheat: Spring	Durum	Winter	Totals	Bonded wheat	Coarse grain: Corn	Oats	Rye	Barley	Flaxs'd
Buffalo	67,321	7,441	5,750	80,511	...	13,372	6,920	715	6,226	3,961
Erie	879	422	343	1,644	...	...	...	...	...	...
Oswego	7,012	2,616	2,083	11,715	...	495	...	...	...	...
So. Chicago	1,837	...	...	1,837	...	...	151	...	...	...
Detroit	95	...	...	95	...	...	...	...	...	...
Cleveland	554	...	...	554	...	...	...	...	...	108
Ogdensburg	236	...	...	236	...	...	...	...	...	...
Milwaukee	...	...	...	...	...	...	...	...	411	...
Toledo	...	...	...	...	...	...	171	...	...	...
Totals	78,926	10,471	8,186	98,591	...	14,072	7,584	719	6,632	4,516
Canadian ports—										
Midland	263	...	739	992	...	...	285	...	...	...
Cardinal	...	...	...	...	...	399	...	...	...	...
Collingwood	17	555	128	530	...	...	...	...	...	...
Tiffin	518	110	...	628	...	...	...	...	1,316	...
Pt. McNicoll	908	...	347	1,255	...	...	...	...	...	...
Pt. Colborne	...	...	...	...	...	...	1,958	...	...	...
Montreal	...	...	...	...	...	133	1,149	...	518	...
Prescott	...	...	...	...	...	...	159	...	...	...
Goderich	137	...	...	137	...	...	...	...	...	...
Owen Sound	...	...	...	...	...	159	...	...	264	...
Ft. William	...	...	...	...	...	159	...	...	...	...
Grand totals	78,858	11,146	8,499	100,223	...	14,847	11,395	719	11,047	4,516
Totals, 1948	74,175	3,858	2,813	84,846	...	8,109	5,611	281	1,582	10,175
1947	68,397	10,911	3,915	83,223	...	3,159	8,587	...	8,482	4,244
1946	87,471	3,174	5,591	96,180	...	...	11,945	...	3,942	3,190
1945	127,855	875	8,914	137,280	...	3,733	17,948	...	4,956	5,675
1944	191,644	2,667	3,910	198,021	...	304	1,511	68	693	4,482
1943	51,138	471	5,317	57,326	...	1,936	318	495	3,991	7,750
1942	35,515	2,793	4,892	48,239	...	14,095	546	1,146	2,349	8,423
1941	36,266	2,092	6,074	44,432	13,867	29,306	1,412	2,784	6,750	2,947
1940	56,887	5,290	4,117	66,292	2,743	23,611	6,747	2,227	5,957	5,149
1939	39,782	5,078	5,654	50,614	...	17,581	15,553	5,443	8,764	4,192
1938	34,938	5,562	3,475	43,546	...	18,123	15,524	5,924	12,580	1,491
1937	12,977	1,418	5,600	20,995	1,194	8,572	9,422	4,364	9,150	979
1936	8,014	331	1,176	9,521	408	2,724	6,239	2,089	4,460	991
1935	13,376	724	2,226	15,316	508	1,019	6,014	2,787	7,453	2,410
1934	25,587	258	1,697	25,542	397	7,144	9,497	1,189	4,098	237
1933	34,495	4,863	2,946	42,304	427	5,662	4,248	2,323	4,553	1,962
1932	21,891	8,048	1,962	39,881	318	74	821	2,979	2,627	3,049
1931	24,897	14,430	2,461	41,788	133	2,314	2,896	5,078	3,071	3,183
1930	31,229	27,781	4,312	63,292	634	1,727	7,101	1,971	8,312	5,474
1929	26,029	28,966	7,734	66,711	388	3,063	3,109	4,928	14,693	3,621
1928	38,744	47,200	6,026	92,770	629	467	2,923	12,610	29,120	5,819
1927	45,893	36,998	11,474	94,274	737	...	7,848	31,378	22,818	8,062

Chicago Grain, Flour and Feed Movement

Note: By calendar years, 000's omitted. **Source: Chicago Board of Trade.**

RECEIPTS

	Flour, sacks	Bushels: Wheat	Corn	Oats	Rye	Barley	Flaxseed	Tons: Mill feed*	Oil cake
1949	23,504	16,982	113,845	37,503	9,482	15,431	1,273	264	12
1948	24,882	26,418	111,912	20,433	4,533	14,792	2,229	210	29
1947	27,197	44,113	152,142	35,954	3,109	19,670	944	274	13
1946	27,001	21,217	116,092	43,345	2,145	17,349	781	372	
1945	29,441	27,797	101,938	33,652	8,887	19,734	1,069	405	14
1944	25,364	67,473	88,790	17,635	4,012	26,919	1,192	486	21
1943	23,549	48,748	94,714	21,095	11,873	28,941	1,673	415	19
1942	23,874	29,529	105,817	18,159	3,881	14,328	1,181	238	15
1941	19,764	12,050	100,188	20,858	5,535	12,833	1,919	172	4
1940	21,354	20,164	93,127	18,544	3,009	12,041	1,002	151	1
1939	22,687	26,719	83,985	21,946	3,099	12,130	368	118	1
1938	21,499	30,896	155,601	24,544	5,307	10,889	796	141	1
1937	28,237	38,104	66,727	24,445	3,245	10,419	873	105	11
1936	29,909	23,482	40,283	21,987	7,755	15,691	862	129	1
1935	18,355	11,701	32,979	17,694	8,396	9,240	1,531	96	1
1934	17,554	13,780	35,600	14,413	5,885	10,303	878	119	2
1933	17,344	13,591	82,479	21,163	6,712	8,771	1,398	101	3
1932	17,319	13,998	79,932	28,148	842	6,120	694	126	4
1931	20,384	50,175	57,981	17,782	1,813	8,078	1,181	179	3
1930	12,230	77,759	73,678	29,219	3,078	7,183	1,023	193	7

SHIPMENTS

	Flour, sacks	Bushels: Wheat	Corn	Oats	Rye	Barley	Flaxseed	Tons: Mill feed*	Oil cake
1949	9,112	28,761	31,899	24,430	1,149	2,397	366	319	2
1948	10,925	21,033	18,898	22,058	2,119	3,083	50	411	2
1947	11,174	34,888	83,105	25,224	1,408	4,080	214	478	
1946	14,610	19,019	19,143	42,679	3,679	4,892	317	519	
1945	8,108	19,139	10,286	28,833	19,588	7,918	193	700	4
1944	8,310	59,071	42,150	16,097	7,042	6,015	193	698	1
1943	16,694	41,177	58,460	17,065	7,044	6,401	683	760	2
1942	11,126	24,539	43,746	16,019	3,277	5,144	1,485	723	4
1941	11,049	13,443	66,979	16,021	3,739	3,873	867	809	8
1940	13,575	20,087	86,224	16,133	2,594	2,619	729	639	1
1939	14,266	23,395	54,199	26,763	1,477	3,707	293	491	1
1938	13,820	25,178	98,580	22,669	1,987	2,918	159	463	1
1937	12,914	32,009	30,825	27,064	8,511	5,014	412	422	13
1936	11,585	29,783	25,333	17,913	7,114	3,115	325	388	1
1935	12,913	14,520	14,878	11,361	8,201	2,273	999	310	1
1934	11,834	18,011	28,327	13,389	4,981	2,279	89	344	1
1933	10,678	16,183	51,742	17,877	1,978	1,618	51	339	2
1932	10,176	17,126	47,607	24,734	1,148	915	5	418	3
1931	9,938	18,284	28,700	19,895	3,357	3,011	45	452	83
1930	14,419	28,849	37,428	24,877	3,313	3,110	10	594	548

*Thousands not omitted in millfeed shipments.

Chicago Movement

Note: By routes, 000's omitted. Source: Chicago Board of Trade.

RECEIPTS

By lake—	Bushels: Wheat	Corn	Oats	Rye
Fort William	192	...	124	8,258
Duluth-Sup.	1,529	...	...	...
Totals lake	1,721	...	124	8,258

	Flour, sacks	Bushels: Wheat	Corn	Oats	Soybeans
Ill. waterways	...	2,329	18,180	1,885	4,425
N. Western	2,626	1,057	14,727	3,986	923
Ill. Central	527	6,124	11,975	4,029	3,493
R. Island	644	4,213	6,181	3,137	543
Burlington	3,286	2,747	7,848	4,498	1,152
Gulf, Mobile & Ohio	1,286	1,480	1,749	1,842	758
Chi. & E.I.	421	1,899	4,318	1,218	1,577
C., M., St. P. & P.	8,487	1,378	7,457	2,026	846
Wabash	479	3,168	2,752	2,971	1,028
Gt. West	1,002	1,177	3,633	1,228	323
Santa Fe	2,144	511	731	1,166	256
Soo Line	11	547	31	88	...
E. J. & E.	...	29	243	426	124
E. & S. E. Line	488	7,890	12,948	3,553	3,781
Motor trucks	...	309	4,782	214	1,850
Totals, 1949	23,518	36,962	113,848	37,602	19,118
Totals— 1948	24,882	26,418	111,912	20,433	14,619
1947	27,197	44,113	152,142	35,954	13,923
1946	27,001	21,217	116,092	43,345	17,118
1945	29,441	27,797	101,938	33,652	18,848
1944	25,364	67,463	88,790	17,635	13,048
1943	23,549	48,449	81,458	17,319	16,128
1942	23,824	29,529	105,817	18,159	8,784
1941	19,764	12,050	100,188	20,858	12,322
1940	21,354	20,164	93,127	18,544	8,010
1939	22,687	26,719	83,985	21,946	...
1938	21,499	30,869	155,601	24,544	
1937	28,237	38,104	66,727	24,445	
1936	29,909	29,169	58,457	21,984	...
1935	18,355	11,701	32,979	17,694	...
1934	17,554	13,780	35,600	14,413	...

SHIPMENTS

	Flour, sacks	Bushels: Wheat	Corn	Oats	Soybeans
By lake	...	7,788	24,244	1,382	1,793
Ill. waterways	...	2,101	287	...	449
N. West	513	602	1,744	155	182
Ill. Central	655	763	2,717	1,983	2,224
R. Island	47	22	394	3	36
Burlington	29	...	7	...	...
Gulf, Mobile & Ohio	195	1,216	148	215	13
C. & E. Ill.	147	67	4	109	...
C., M., St. P. & P.	394	67	145	84	14
Wabash	927	1,167	2,633	1,044	2,261
Gt. West	8	...	...	...	1
Santa Fe	51	1	24	12	6
Soo Line	...	2	4	...	...
E. & S. E. Lines	6,186	12,699	26,499	20,621	3,424
Totals, 1949	9,112	28,761	31,899	24,430	8,104
Totals— 1948	10,925	21,033	18,898	22,058	8,975
1947	11,174	34,888	83,105	25,224	8,431
1946	14,610	19,019	19,143	42,679	8,289
1945	10,012	19,265	48,211	28,121	6,686
1944	8,330	59,021	42,150	16,097	6,224
1943	16,694	41,177	58,408	17,065	8,230
1942	11,126	24,739	43,746	16,019	3,519
1941	11,049	13,442	66,979	16,021	3,781
1940	13,576	20,287	86,224	16,133	4,825
1939	14,266	23,395	54,199	26,762	...
1938	13,820	25,178	98,580	22,669	...
1937	12,914	32,009	30,825	27,064	...
1936	11,585	11,568	15,784	17,095	...
1935	12,912	14,520	14,878	11,861	...
1934	11,834	18,011	29,327	13,389	...

Dockage

For the purposes of the official wheat standards of the U.S., dockage includes weed seeds, weed stems, chaff, straw, grain other than wheat, sand, dirt and any other foreign material which can be removed readily from wheat by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled and small pieces of wheat kernels removed in properly separating the foreign material, and which cannot be recovered by properly rescreening or recleaning. Note: The "dockage" system is also used in connection with the official grading of rye, barley, flaxseed, grain sorghums and soybeans but with slight variations in meaning.

Kansas City Grain Movement

Note: In bushels, 000's omitted. Source: Kansas City Board of Trade.

RECEIPTS

	Wheat	Corn	Oats	Rye	Barley
1949	111,731	22,843	6,490	167	3,492
1948	116,621	24,675	3,846	141	1,334
1947	148,254	28,255	4,148	248	2,955
1946	126,336	26,872	5,372	482	2,988
1945	121,842	48,105	6,469	148	7,208
1944	121,334	51,207	6,138	1,060	7,878
1943	127,406	36,268	8,400	2,263	6,839
1942	73,820	36,410	5,418	611	4,892
1941	84,761	18,696	3,792	361	3,074
1940	68,818	14,771	1,218	113	328
1939	83,549	15,278	2,118	417	394
1938	86,621	13,011	3,068	607	839
1937	94,893	13,242	3,394	476	461
1936	63,744	17,481	3,248	213	962
1935	48,761	14,854	3,004	321	747
1934	44,858	25,238	1,889	177	314
1933	48,116	18,831	2,458	218	642
1932	86,394	7,681	1,004	136	590
1931	125,933	22,944	3,170	183	1,057
1930	86,968	30,022	3,864	608	2,664
1929	101,542	32,417	5,156	394	2,677

SHIPMENTS

	Wheat	Corn	Oats	Rye	Barley
1949	73,780	15,558	4,710	111	1,183
1948	146,836	21,893	4,092	112	4,848
1947	179,273	26,423	3,494	281	2,849
1946	99,873	14,487	3,288	335	3,520
1945	84,583	35,288	4,308	892	7,187
1944	47,376	18,772	3,268	788	3,778
1943	107,353	21,807	7,044	1,149	4,374
1942	42,630	24,909	4,105	479	4,833
1941	67,101	7,280	1,514	278	2,069
1940	23,075	4,730	676	67	80
1939	47,139	6,167	2,012	86	186
1938	41,190	7,280	2,144	195	79
1937	53,121	3,784	2,914	114	165
1936	33,353	9,193	3,294	73	378
1935	26,544	15,945	1,093	118	322
1934	31,344	10,149	1,442	186	320
1933	26,931	8,224	1,004	187	333
1932	39,532	1,283	348	131	374
1931	84,359	16,815	1,584	168	1,131
1930	62,918	22,047	3,868	273	1,962
1929	64,727	23,388	2,442	158	1,715

Receipts of kafir corn, milo maize and feterita in the years since records were kept, in bushels:

1949	3,118,750	1940	1,498,000
1948	8,150,750	1939	931,900
1947	7,273,000	1938	1,082,400
1946	4,828,500	1937	809,800
1945	21,374,750	1936	1,254,800
1944	12,859,000	1935	835,600
1943	8,950,550	1934	978,600
1942	1,762,600	1933	1,325,600
1941	2,083,000	1932	1,093,600

Shipments of kafir corn, milo maize and feterita in the years since records were kept, in bushels:

1949	2,171,250	1940	364,000
1948	6,749,750	1939	826,600
1947	3,741,750	1938	836,000
1946	4,077,500	1937	524,400
1945	20,499,500	1936	652,500
1944	11,649,000	1935	671,000
1943	4,683,500	1934	888,400
1942	1,873,500	1933	1,157,000
1941	1,582,400	1932	1,496,800

U.S. Carload Wheat Inspection by Crop Years

Note: Carloads by crop years. Source: USDA

	1946-47	1947-48	1948-49
Dark nor spring—			
No. 1 heavy	37,331	34,270	33,595
No. 1	36,737	27,442	13,712
No. 2	14,864	14,498	7,638
No. 3	3,176	17,722	3,728
All others	1,839	3,839	1,885
Totals	94,183	95,431	60,558
Northern spring—			
No. 1 heavy	3,992	16,419	23,242
No. 1	8,179	15,243	16,929
No. 2	3,694	8,572	12,848
No. 3	4,830	2,823	7,443
All others	3,667	3,744	4,613
Totals	23,362	45,831	64,285
Red spring—			
No. 1 heavy	8	1	33
No. 1	24	30	34
No. 2	30	7	66
No. 3	10	0	448
All others	3	8	161
Totals	77	43	752
Tot. hard red spring	**121,837**	**130,390**	**141,367**
Hard amber durum—			
No. 1	3,173	8,320	8,344
No. 2	3,421	3,283	3,409
No. 3	812	839	2,488
All others	191	194	431
Totals	8,334	12,642	15,214
Amber durum—			
No. 1	1,112	3,882	1,198
No. 2	3,817	5,183	2,243
No. 3	389	984	809
All others	119	227	361
Totals	5,437	10,073	4,917
Durum—			
No. 1	327	1,009	314
No. 2	119	621	787
No. 3	158	332	485
All others	164	273	377
Totals	1,193	2,089	1,303
Red durum—			
No. 1	143	727	1,394
No. 2	171	409	179
No. 3	138	192	301
All others	261	139	183
Totals	1,376	1,347	1,887
Total durum	**17,956**	**26,148**	**24,179**
Dark hard winter—			
No. 1	116,386	118,368	84,817
No. 2	37,022	29,741	31,477
No. 3	4,871	3,173	4,437
All others	2,087	3,183	3,828
Totals	155,464	153,723	101,329
Hard winter—			
No. 1	153,944	263,193	171,338
No. 2	48,118	95,647	144,756
No. 3	14,278	14,903	41,198
All others	14,129	14,090	31,142
Totals	146,363	457,984	388,445
Yellow hard winter—			
No. 1	2,878	446	16,267
No. 2	173	139	5,943
No. 3	173	48	1,183
All others	82	72	1,400
Totals	3,009	1,033	20,164
Tot. hard red winter	**306,016**	**557,744**	**506,739**
Red winter—			
No. 1	8,141	4,198	2,884
No. 2	23,341	22,330	29,025
No. 3	6,278	16,734	27,641
All others	2,231	11,356	26,839
Totals	40,020	52,363	72,190
Western red—			
No. 1	1,218	630	687
No. 2	201	158	172
No. 3	28	18	29
All others	4	29	45
Totals	1,451	1,814	1,163
Total soft red winter	**41,480**	**56,307**	**73,353**
Hard white—			
No. 1	4,844	4,743	6,483
No. 2	1,287	1,914	1,294
No. 3	109	251	198
All others	189	202	133
Totals	6,421	7,142	8,072
Soft white—			
No. 1	13,811	15,134	17,339
No. 2	6,730	12,410	15,096
No. 3	840	2,641	4,318
All others	630	779	1,819
Totals	24,451	31,964	40,532
White club—			
No. 1	6,037	3,873	3,424
No. 2	1,873	4,848	7,276
No. 3	141	168	824
All others	93	45	185
Totals	8,644	8,171	11,329
Western white—			
No. 1	3,187	2,084	2,844
No. 2	1,074	1,447	2,263
No. 3	267	114	129
All others	94	54	151
Totals	4,619	4,093	5,349
Total white wheat	**55,366**	**51,397**	**65,646**
Mixed wheat—			
No. 1	3,489	3,343	3,803
No. 2	4,867	7,324	9,451
No. 3	2,038	2,504	7,478
All others	1,437	1,438	1,818
Totals	13,337	19,317	19,748
Amber mixed durum—			
No. 1	188	155	183
No. 2	164	145	81
No. 3	129	77	53
All others	45	15	48
Totals	361	394	363
Mixed durum—			
No. 1	111	48	38
No. 2	115	77	55
No. 3	87	44	55
All others	45	21	52
Totals	361	311	200
Total mixed wheat	**16,230**	**20,022**	**27,391**
Grand totals	**631,761**	**847,916**	**842,133**

U.S. Wheat Grades and Types

Note: Wheat inspections by grades and by crop years, ending June 30.

Source: USDA

	1949	1948	1947	1946	1945	1944
No. 1	47.8	55	56	55	60	63
No. 2	30.2	33	33	26	27	24
No. 3	12.7	8	7	13	12	8
All others	9.3	5	4	6	11	5
	100	100	100	100	100	100

Note: Wheat inspections by type and by crop years, ending June 30.

	1949	1948	1947	1946	1945	1944
Hd. red spring	17	14	19	24	26	21
Durum	3	3	3	2	3	3
Hd. red winter	61	67	61	57	57	61
Soft red winter	9	7	6	7	6	2
White	7	6	6	6	7	7
Mixed wheat	3	2	3	3	3	3
	101	100	100	100	100	100

Canadian Inspection Charges

Fees chargeable for the inspection of staple articles under the general inspection and grain inspection acts of Canada:

Inspection of grain: per car, $1; in cargoes, $2 per 1,000 bu.

Weighing of grain: per car, $1; in cargoes, $1 per 1,000 bu.

Lake Shipments of Principal Grains by Years

Note: In bushels. Source: Lake Carriers' Assn.

	Wheat	Corn	Oats	Rye	Barley	Flax
1948	223,262,144	14,133,634	44,916,067	7,195,434	17,993,084	*19,763,139
1947	289,376,144	16,071,981	58,071,100	10,118,914	38,488,460	6,992,810
1946	256,793,684	4,323,323	66,126,793	3,776,658	34,022,858	7,192,082
1945	*482,942,878	7,644,548	*103,190,395	6,602,222	50,011,372	10,611,482
1944	420,473,660	2,645,975	82,331,006	8,750,012	56,891,183	13,521,079
1943	304,278,941	7,440,876	35,652,066	5,606,382	47,820,454	17,072,088
1942	226,299,583	29,115,742	17,897,644	5,398,174	13,098,823	11,848,039
1941	299,519,199	48,155,973	18,826,845	10,248,506	16,284,844	4,994,850
1940	230,543,754	64,694,924	21,295,164	6,971,034	18,074,230	6,971,651
1939	261,614,792	48,441,733	24,360,675	9,461,613	24,919,240	6,136,045
1938	192,816,283	*118,928,121	25,881,375	7,451,511	30,142,717	2,089,008
1937	146,401,415	10,851,648	19,450,244	9,044,294	25,200,634	1,271,194
1936	189,877,146	11,074,330	18,396,534	7,845,188	24,470,107	1,861,814
1935	189,609,917	1,643,981	21,224,996	2,872,663	11,614,394	1,962,821
1934	192,079,773	35,327,058	26,272,504	5,397,481	17,867,343	664,999
1933	219,356,691	87,568,501	24,773,754	6,269,784	2,893,130	2,098,065
1932	314,772,436	42,253,500	25,801,391	11,669,773	11,129,832	3,374,000
1931	250,382,361	19,139,878	30,145,693	4,685,309	23,991,474	3,939,383
1930	269,581,227	19,370,902	29,719,490	7,627,849	29,347,930	3,389,900
1929	243,542,985	21,612,751	36,526,830	12,217,439	21,636,604	3,241,768
1928	415,310,713	18,612,918	37,888,027	23,749,444	*53,743,107	10,441,393
1927	355,794,361	27,889,109	29,890,637	41,603,137	45,854,948	11,841,871
1926	299,458,478	18,179,663	46,167,227	17,238,358	33,872,193	8,194,991
1925	381,268,054	17,137,601	65,418,558	19,997,591	46,348,909	14,446,461

*Peak shipments.

Kansas City Receipts, Shipments

Note: In bushels. Source: Kansas City Board of Trade.

RECEIPTS

1949—	Wheat	Corn	Oats
January	5,886,200	2,413,300	466,000
February	4,476,800	1,414,100	568,000
March	19,818,800	1,882,800	842,000
April	9,024,400	2,317,100	372,000
May	18,005,500	1,872,400	436,000
June	14,172,800	2,040,000	314,000
July	24,199,200	1,199,300	684,000
August	8,118,800	2,358,300	358,000
September	3,217,000	3,836,000	474,000
October	6,423,600	4,863,600	584,000
November	4,283,400	6,284,200	324,000
December	4,413,000	6,808,700	474,000
Total	111,721,800	33,882,000	6,480,000
1948—	**Wheat**	**Corn**	**Oats**
January	18,431,800	3,575,200	343,000
February	4,928,000	1,283,800	220,000
March	4,712,400	1,913,200	396,000
April	7,880,800	2,357,900	384,000
May	8,711,000	1,744,200	294,000
June	13,808,300	2,330,400	248,000
July	31,380,400	1,383,200	858,000
August	14,768,800	893,200	855,000
September	8,129,600	1,732,800	551,000
October	7,120,400	1,708,100	537,000
November	8,849,800	3,777,400	626,000
December	8,202,400	3,412,800	758,000
Total	166,820,800	24,875,800	5,344,000
1947—	**Wheat**	**Corn**	**Oats**
January	12,431,000	5,643,000	676,000
February	11,188,300	4,882,000	732,000
March	13,343,300	4,838,800	1,018,000
April	4,161,000	1,573,000	334,000
May	6,012,000	1,731,000	666,000
June	6,867,000	1,462,100	230,000
July	57,088,000	2,440,300	444,000
August	21,412,000	2,384,700	408,000
September	13,824,100	1,538,000	436,000
October	7,832,800	1,353,800	646,000
November	6,009,600	1,494,200	392,000
December	10,182,800	1,888,700	470,000
Total	144,358,400	28,284,100	6,544,000

SHIPMENTS

1949—	Wheat	Corn	Oats
January	8,215,200	1,887,100	482,000
February	6,127,300	1,486,300	436,000
March	7,840,300	1,617,900	481,000
April	7,382,800	1,072,100	371,000
May	3,197,400	418,000	355,000
June	6,475,800	883,000	348,000
July	13,330,100	853,000	564,000
August	9,182,700	771,000	474,000
September	8,704,300	735,000	282,100
October	5,841,900	1,000,000	278,000
November	4,454,700	2,802,400	382,000
December	5,287,800	3,778,000	336,000
Total	75,794,000	15,888,100	4,712,000
1948—	**Wheat**	**Corn**	**Oats**
January	10,483,200	853,500	212,000
February	8,271,900	863,000	282,000
March	7,869,400	1,168,100	153,000
April	8,835,100	1,356,800	358,000
May	8,304,800	1,063,100	184,000
June	10,161,500	847,000	48,000
July	13,522,200	887,200	338,000
August	14,894,800	488,500	382,000
September	7,182,100	264,500	484,000
October	7,068,900	1,048,800	472,000
November	8,817,200	2,886,800	616,000
December	7,838,400	1,896,100	450,000
Total	104,828,700	11,892,100	4,082,000
1947—	**Wheat**	**Corn**	**Oats**
January	6,976,700	3,106,000	784,000
February	7,884,300	3,745,000	438,000
March	8,717,400	3,456,100	832,000
April	8,861,900	3,121,000	381,000
May	5,557,100	3,887,100	348,000
June	5,476,300	2,144,900	361,000
July	11,677,400	1,403,000	318,000
August	15,181,500	1,224,100	309,000
September	8,813,200	151,800	142,000
October	8,533,500	558,100	412,000
November	8,343,400	463,000	554,000
December	9,532,300	318,300	374,000
Totals	108,572,900	25,412,200	5,253,000

Kansas City Feed Movement

Note: Bran and shorts, in tons. Source: Kansas City Board of Trade.

	Receipts	Shipments
1949	97,569	338,433
1948	137,400	349,840
1947	129,260	392,729
1946	23,440	297,260
1945	28,810	355,480
1944	32,465	277,444
1943	49,120	414,300
1942	104,743	470,380
1941	100,025	308,275
1940	88,400	288,825
1939	88,725	380,116
1938	75,425	385,875
1937	70,900	319,500
1936	74,900	377,875
1935	61,975	365,305

MANUFACTURED FEED (TONS)

	Shipments
1949	413,450
1948	316,710
1947	373,385
1946	418,880
1945	448,100
1944	442,320
1943	486,275
1942	426,550
1941	280,700
1940	218,200
1939	204,475
1938	226,320
1937	241,200
1936	274,040
1935	156,875

Duluth Wheat Movement

Note: In bushels, 000's omitted. Source: Duluth Board of Trade.

RECEIPTS

	Spring	Winter	Durum	Totals
1949	94,252	13,728	17,862	125,842
1948	94,719	6,470	12,333	113,501
1947	93,259	4,923	18,835	117,017
1946	102,881	9,420	5,940	117,661
1945	128,545	7,365	9,422	145,328
1944	116,052	7,820	4,188	128,750
1943	74,886	8,774	3,787	87,347
1942	45,079	4,063	9,200	*58,973
1941	69,926	5,129	10,789	85,844
1940	42,553	6,733	4,022	53,308
1939	35,756	8,536	2,503	46,874
1938	42,716	4,342	3,703	62,383
1937	24,829	3,555	3,553	32,843
1936	7,794	2,418	1,703	11,892
1935	14,759	3,549	1,790	20,748
1934	17,759	4,922	1,985	24,537
1933	38,537	5,922	1,442	45,902
1932	35,087	8,104	1,271	44,840
1931	23,742	17,776	4,060	44,558
1930	78,087	12,901	2,760	73,748

SHIPMENTS

	Spring	Winter	Durum	Totals
1949	95,353	11,118	13,406	119,881
1948	89,642	3,451	7,046	98,122
1947	88,181	3,826	11,398	99,515
1946	106,729	4,881	8,117	118,717
1945	133,487	2,947	9,176	145,610
1944	121,191	4,394	4,809	130,383
1943	87,191	5,839	3,116	95,183
1942	41,914	6,366	6,247	53,524
1941	46,428	5,076	4,494	49,998
1940	37,306	7,448	4,242	49,171
1939	32,287	6,929	2,949	41,475
1938	30,103	3,479	4,746	36,328
1937	22,466	3,201	4,232	31,167
1936	14,919	2,991	8,241	26,153
1935	18,178	3,229	2,588	26,385
1934	24,237	8,281	1,720	32,248
1933	36,101	4,719	3,118	44,919
1932	32,443	19,012	3,153	41,009
1931	25,219	18,313	2,538	46,331
1930	32,585	10,182	3,225	44,735

*Includes 836 bus feed wheat received and 617 bus shipped.

White wheat received in 1937, 48,360 bus; 1936, 28,660; shipped in 1937, 68,000; 1936, 25,000.

St. Louis Grain Receipts

Note: By rail, water and trucks, in bushels, 000's omitted. Source: St. Louis Merchants Exchange.

	Wheat	Corn	Oats	Rye	Barley
1949	26,297	23,242	9,141	43	1,554
1948	27,497	26,884	8,731	19	2,184
1947	25,744	36,087	8,144	12	1,743
1946	16,274	22,222	10,687	86	2,209
1945	21,433	29,583	9,469	97	2,081
1944	29,878	17,825	8,808	322	2,719
1943	18,881	25,948	4,744	131	2,907
1942	13,440	28,947	2,249	199	1,987
1941	16,910	13,481	2,784	148	2,164
1940	19,501	14,849	2,454	44	1,825
1939	26,712	17,189	2,819	25	1,558
1938	31,143	22,453	4,482	65	1,852
1937	22,394	22,379	3,513	137	2,171
1936	14,919	26,982	7,254	174	2,328
1935	12,607	13,348	4,809	181	1,425

Chicago Lake Shipments

Note: In sacks and bushels, 000's omitted. Source: Chicago Board of Trade.

FLOUR AND WHEAT

	1949		1948	
	Flour sacks	Wheat bu.	Flour sacks	Wheat bu.
Buffalo		3,477		4,357
Pt. McNicoll				258
Erie				
Tiffin				442
Oswego		3,144		2,894
Totals		7,581		7,789

CORN AND OATS (000)

	1949		1948	
	Corn	Oats	Corn	Oats
Buffalo	3,419	91	2,563	1,155
Albany	33			
Cardinal	318		1,471	
Goderich	763		495	
Kingston				
Montreal	311		2,712	
Prescott	118		742	
Tiffin			156	
Walkerville	2,306		2,499	287
Sarnia	401		1,477	363
Owen Sound	199		138	
Toronto	180		315	
Pt. Colborne			1,599	
Pt. McNicoll			182	
Sorel			81	
Three Rivers			377	
Totals	7,904	91	15,152	1,805

New York Free Lighterage

HUDSON RIVER

New York side: Battery to 135th Street.

New Jersey side: National Storage Docks, Communipaw, to and including George Washington Bridge.

EAST RIVER AND HARLEM RIVER

New York side: Battery to Jerome Avenue Bridge, including Harlem River side of Ward's Island and Randall's Island.

Brooklyn side: From Pot Cove, Astoria, L. I., to and including 55th Street, South Brooklyn (Bay Ridge), including Newtown Creek, Dutch Kills Creek and Gowanus Creek points in the Wallabout Canal and to Hamilton Avenue Bridge, Gowanus Canal.

NEW YORK BAY

New York Bay: Points on north and east shore of Staten Island, between Bridge Creek (Arlington) and Clifton (Hylan Boulevard), both inclusive, and including Shooters Island.

Points on the New Jersey shore on New York Bay, and on Kill von Kull between Constable Hook and Avenue C, Bayonne City, opposite Port Richmond, S. I.

KILL VON KULL, NEWARK BAY, PASSAIC AND HACKENSACK RIVERS

Kill von Kull, Newark Bay, Passaic and Hackensack Rivers: To and from points on the New Jersey shore between Avenue C, Bayonne, to and including Neck of Bergen Point (except Safety Ins. Wire and Cable Co. dock).

To and from points on the east shore of Newark Bay, (except north of Bergen Point) to and including C. R. R. of N.J. main line (Newark Bay) bridge.

To and from points beyond C. R. R. of N.J. main line (Newark Bay) bridge to Newark and Kearny, N.J., inclusive, and points on the Hackensack River to and including Newark-Jersey City turnpike bridge.

STATEN ISLAND SOUND

Staten Island Sound: To and from points on New Jersey shore from the C. R. R. of N. J. main line (Newark Bay) bridge to and including Perth Amboy, N. J., on Staten Island Sound.

Canadian Lake Shipments of Grain

Note: In bushels, 000's omitted. Source: Dominion Bureau of Statistics

	Wheat	Oats	Barley	Rye	Flaxseed	Total
1949*	203,434	16,690	19,131	178	1,550	241,083
1948	175,422	12,810	33,584	6,298	8,553	219,747
1947	187,334	16,682	29,817	9,108	2,488	236,361
1946	147,431	14,086	30,777	2,771	2,194	195,570
1945	244,806	44,513	42,187	4,419	4,284	353,720
1944	306,215	35,031	59,344	3,128	7,288	421,061
1943	248,159	38,103	43,514	3,358	8,878	341,515
1942	178,511	17,943	10,819	1,898	4,949	211,113
1941	232,974	9,080	11,874	6,092	4,337	263,033
1940	174,883	15,828	10,831	3,888	1,120	206,551
1939	266,448	13,533	10,451	478	1,880	291,181

*Subject to revision.

CROPS: PRODUCTION, ACREAGE

World Wheat Production, Yield and Acreage

Note: 000's omitted **Source: USDA**

Continent and country	Acreage* Average 1935-39	1947	1948	1949‡	Yield per acre† Av. 1935-39	Production Av. 1935-39	1947	1948	1949‡
	1,000 acres				bu.	1,000 bu.			
N. America—									
Canada	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mexico	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
U. S.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Est. total‡	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
Europe—									
Albania	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]		
Austria	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Belgium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Bulgaria	[illegible]	[illegible]			[illegible]	[illegible]			
Czechoslovakia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Denmark	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Finland	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
France	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Greece	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
Hungary	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]		
Ireland	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Italy	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Luxembourg	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Netherlands	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Norway	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Portugal		[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
Rumania	[illegible]				[illegible]	[illegible]			
Spain	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sweden	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Switzerland	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
U. K.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Yugoslavia	[illegible]				[illegible]	[illegible]			
Est. total‡	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
U.S.S.R. (Europe & Asia)		[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
Asia—									
Iran	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iraq	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lebanon	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Palestine	[illegible]				[illegible]	[illegible]			
Syria	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Turkey	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
China	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Manchuria	[illegible]				[illegible]	[illegible]			
Indian Union**	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pakistan**	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Japan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Korea	[illegible]				[illegible]	[illegible]			
Est. total‡	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
Africa—									
Algeria	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Egypt	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fr. Morocco	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tunisia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Union of South Africa††	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Est. total‡	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
S. America—									
Argentina	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Brazil	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	
Chile	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Peru	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	
Uruguay	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Est. total‡	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
Oceania—									
Australia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New Zealand	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Total	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
Est. world total‡	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]

Prepared or estimated on the basis of official statistics of foreign governments, reports of U.S. Foreign Service officers, results of office research or other information. Prewar estimates for countries having changed boundaries have been adjusted to conform to present boundaries. Years shown refer to years of harvest in the Northern Hemisphere. Harvests of Northern Hemisphere countries are combined with those of the Southern Hemisphere which immediately follow; thus the crop harvested in the Northern Hemisphere in 1948 is combined with preliminary forecasts for the Southern Hemisphere harvests which began late in 1948 and end early in 1949. *Figures refer to harvested areas as far as possible. †Yield per acre calculated from acreage and production data shown, except for incomplete periods. ‡Revised estimates for Northern Hemisphere countries, for Southern Hemisphere preliminary forecasts based largely on acreage and weather conditions to date. ‡Estimated totals, which in the case of production are rounded to millions, include allowances for any missing data for countries shown and for other producing countries not shown. **Estimates for reporting area only. Allowances for non-reporting area not shown are included in estimated total for Asia. ††European production only.

Kernels in Bushel

Calculations made by the North Dakota state seed department on hard red spring wheat indicate the number of kernels in a measured bushel to be as follows: 1,[illegible] in 60-lb wheat, [illegible] in 55-lb wheat, [illegible] in 50-lb wheat, [illegible] in 45-lb wheat, [illegible] in 40-lb wheat.

Definition of Osnaburg

Osnaburg is a heavy, coarsely woven cloth made of short staple cotton fibers too short to be used in sheeting. Construction of goods is described in terms of the number of yards to the pound; 37" [illegible] yd. means 1 yd. of 37" material to the pound.

U.S. Winter Wheat Forecasts

Note: Estimated on date specified but not including revisions made after the year of harvest. In bushels, 000,000's omitted. **Source: USDA**

	April	May	June	July	Aug.	Dec.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

U.S. Spring Wheat Forecasts

Note: Estimates on date specified but not including revisions made after the year of harvest. In bushels, 000,000's omitted. **Source: USDA**

	June	July	Aug.	Sept.	Oct.	Dec.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

U.S. Durum Wheat Crop

Note: Production in Minnesota, North and South Dakota and Montana. 000's omitted. **Source: USDA**

	Acres	Yield per acre, bu.	Production, bu.
[illegible]	[illegible]	[illegible]	[illegible]

*Not including Montana.

U.S. Winter and Spring Wheat Crop and Acreage

Note: By calendar years, 000's omitted. **Source: USDA**

WINTER WHEAT

State—	Acreage, harvested: Average 1938-47	1948	1949	Yield per acre, bu.: Average 1938-47	1948	1949	Production, bu.: Average 1938-47	1948	1949
New York	395	448	417	19.8	27.5	28.0	7,278	12,320	11,676
New Jersey	58	67	65	22.4	22.5	24.0	1,313	1,785	1,592
Pennsylvania	840	960	915	20.6	19.0	23.0	18,172	18,254	21,114
Ohio	1,933	2,363	2,363	22.4	24.9	25.5	43,254	57,448	60,002
Indiana	1,398	1,772	1,757	19.2	21.5	22.5	27,188	38,162	39,533
Illinois	1,534	1,781	1,967	18.8	24.2	24.5	27,997	40,024	48,171
Michigan	834	1,386	1,187	22.7	25.4	27.8	19,544	26,278	32,919
Wisconsin	39	33	27	18.1	22.5	22.5	728	694	608
Minnesota	143	63	81	18.4	19.0	18.4	2,508	1,129	1,433
Iowa	229	288	392	18.2	23.2	19.8	4,309	7,120	7,800
Missouri	1,411	1,792	1,935	15.3	22.9	18.3	21,650	38,274	35,028
South Dakota	198	259	224	13.0	13.0	12.6	2,618	2,922	2,800
Nebraska	3,314	3,897	3,477	17.7	20.5	14.6	57,004	81,938	57,316
Kansas	11,745	13,211	14,279	13.3	17.5	11.5	159,584	231,164	164,208
Delaware	95	84	86	19.8	11.3	15.1	1,269	888	1,293
Maryland	358	377	357	18.8	18.7	19.3	7,128	6,932	6,878
Virginia	488	457	473	15.9	18.5	18.5	7,802	8,194	8,733
West Virginia	99	85	77	16.7	19.5	19.5	1,624	1,658	1,502
North Carolina	459	390	445	14.8	15.5	13.0	6,806	6,045	5,785
South Carolina	225	218	183	13.5	14.0	10.9	3,019	3,332	1,920
Georgia	192	221	196	12.0	13.5	12.0	2,282	2,984	2,260
Kentucky	371	224	301	14.9	18.8	17.5	5,388	5,194	5,284
Tennessee	358	379	300	13.4	14.5	14.5	4,727	5,381	4,350
Alabama	12	15	12	13.9	15.5	15.0	171	232	180
Mississippi	*11	14	12	*20.9	22.0	22.0	*249	308	264
Arkansas	34	27	20	13.8	17.5	13.0	390	425	290
Oklahoma	4,954	5,633	6,632	13.8	14.5	15.8	67,429	90,963	98,725
Texas	4,298	4,629	7,093	12.2	15.5	14.2	53,944	69,164	102,448
Montana	1,261	1,349	2,105	20.2	20.0	19.0	25,230	27,570	50,204
Idaho	679	841	991	26.2	22.8	23.2	17,760	18,248	23,088
Wyoming	148	224	298	17.8	20.0	21.5	2,778	4,160	6,304
Colorado	1,274	2,872	2,578	16.4	21.0	17.0	24,848	62,412	45,470
New Mexico	295	359	361	11.4	9.0	12.8	3,180	3,231	4,572
Arizona	30	29	30	21.1	22.0	23.0	628	644	700
Utah	207	232	255	20.0	18.9	19.5	4,298	4,348	4,972
Nevada	7	7	6	21.4	26.0	20.2	139	182	169
Washington	1,866	2,303	2,163	22.9	29.8	22.2	42,961	69,960	48,171
Oregon	696	834	769	23.9	29.1	22.4	16,614	24,462	17,202
California	663	603	620	17.6	17.2	18.3	11,429	10,125	11,476
United States	43,308	52,515	58,151	17.0	19.4	15.5	726,151	1,007,467	901,283

*Short-time average.

SPRING BREAD WHEAT

State—	Acreage, harvested: Average 1938-47	1948	1949	Yield per acre, bu.: Average 1938-47	1948	1949	Production, bu.: Average 1938-47	1948	1949
New York	4	6	4	18.2	22.0	21.0	66	132	84
Illinois	13	8	9	20.8	25.9	23.0	263	225	207
Wisconsin	46	92	82	20.5	24.0	22.4	945	2,208	1,837
Minnesota	1,223	917	1,165	17.0	17.5	14.5	20,615	15,976	17,126
Iowa	14	13	16	16.5	21.9	16.0	247	273	256
North Dakota	6,683	6,957	7,374	14.8	14.5	10.5	96,391	100,876	77,427
South Dakota	2,426	3,177	3,532	11.9	13.0	8.0	29,121	41,001	28,596
Nebraska	108	75	84	12.3	14.8	13.0	1,169	1,058	1,092
Montana	2,199	2,316	2,782	14.1	17.8	13.5	28,922	38,542	39,515
Idaho	378	379	542	30.4	30.5	29.0	11,526	17,363	15,713
Wyoming	90	82	82	12.6	19.0	17.5	1,290	1,558	1,435
Colorado	177	102	269	16.7	21.5	18.5	2,885	2,193	4,976
New Mexico	20	18	21	14.0	13.5	17.5	282	238	368
Utah	42	77	73	21.6	31.0	28.5	2,081	2,387	2,016
Nevada	12	17	15	26.0	31.0	21.0	314	527	330
Washington	785	464	398	21.9	22.0	16.5	16,726	10,208	9,339
Oregon	203	210	281	22.0	24.5	21.0	4,373	5,292	5,901
United States	14,753	15,234	17,772	15.5	16.9	11.8	229,141	269,981	205,081

DURUM WHEAT

State—	Acreage, harvested: Average 1938-47	1948	1949	Yield per acre, bu.: Average 1938-47	1948	1949	Production, bu.: Average 1938-47	1948	1949
Minnesota	59	62	95	17.1	11.9	15.5	993	939	1,471
North Dakota	2,148	2,883	3,092	14.7	14.2	11.9	30,813	40,882	34,031
South Dakota	369	262	335	12.9	14.8	10.0	4,488	3,898	3,355
Three states	2,581	3,137	3,522	14.3	14.0	11.0	36,284	44,689	38,861

U.S. Flaxseed Production and Acreage by States

Note: By calendar years, 000's omitted. **Source: USDA**

State—	Acreage, harvested: Average 1938-47	1948	1949	Yield per acre, bu.*: Average 1938-47	1948	1949	Production, bu.*: Average 1938-47	1948	1949
Illinois	18	2	1	†12.8	14.0	13.0	†114	28	13
Michigan	7	7	5	8.4	11.0	14.0	58	77	60
Wisconsin	9	22	17	11.2	12.5	13.0	104	275	221
Minnesota	1,188	1,661	1,578	10.0	11.5	10.0	12,053	19,102	15,780
Iowa	143	104	104	12.1	14.5	14.0	1,795	1,512	1,456
Missouri	8	7	*6	6.2	5.0	5.5	51	35	33
North Dakota	971	1,438	1,784	6.8	10.0	7.5	7,191	14,380	13,158
South Dakota	339	708	705	8.2	11.0	7.0	2,569	7,788	4,616
Kansas	142	72	44	6.9	8.0	6.5	1,099	296	221
Oklahoma	18	2	1	8.5	3.0	8.0	111	9	8
Texas	312	318	328	12.5	4.5	6.0	*321	1,330	1,871
Montana	193	141	68	6.2	10.0	6.5	1,198	1,410	561
Wyoming	1	1	2	†4.7	5.0	5.0	5	5	10
Arizona	†13	55	35	*23.3	28.0	25.0	*365	1,591	810
Washington	5	2	2	†11.2	10.0	12.0	51	20	24
Oregon	3	14	4	†10.7	10.5	11.0	37	147	44
California	137	198	174	18.0	24.5	22.0	2,598	4,851	3,828
United States	3,248	4,553	4,885	9.2	11.2	8.5	30,182	54,278	43,044

*Estimates do not include flaxseed harvested from flax grown for fiber in Oregon 25,000 bu. in 1948 and 20,790 bu. in 1949. †Short-time average.

Grain Crops in Canada

Note: By crop years, in bushels and acres, 000's omitted. Source: Dominion Bureau of Statistics.

BUSHELS

	Wheat	Barley	Buckwheat	Corn
1949*	367,406	120,161	3,130	13,630
1948	393,345	154,643	3,911	12,457
1947	336,758	141,372	5,107	8,683
1946	413,725	148,887	6,831	10,661
1945	305,911	167,737	5,248	10,356
1944	435,535	194,713	5,353	11,790
1943	293,660	215,663	6,143	7,775
1942	556,124	258,156	5,307	14,373
1941	314,825	110,566	4,780	13,362
1940	540,190	104,256	6,692	8,956
1939	520,623	103,147	8,848	8,097
1938	360,010	102,242	7,079	7,690
1937	182,410	83,124	7,745	5,415
1936	229,218	71,922	8,001	6,083
1935	281,935	83,975	7,845	7,765
1934	275,849	63,742	8,826	6,796
1933	281,892	63,359	8,482	5,064
1932	443,061	80,773	8,434	6,057
	Flaxseed	Oats	Rye	Peas
1949*	2,262	314,556	10,011	934
1948	17,563	357,703	25,248	1,469
1947	12,241	278,670	13,317	1,788
1946	8,482	371,068	6,811	2,333
1945	7,595	381,596	8,684	1,363
1944	9,668	499,643	8,326	1,769
1943	17,911	482,922	7,143	1,662
1942	14,993	651,854	24,742	1,692
1941	6,566	365,573	11,439	1,319
1940	3,049	380,526	13,994	1,358
1939	2,044	384,407	15,307	1,307
1938	1,228	371,382	10,988	1,368
1937	697	268,442	6,771	1,199
1936	1,786	271,778	4,281	1,329
1935	1,666	394,348	8,000	1,618
1934	919	321,120	6,700	1,686
1933	633	307,670	6,377	1,377
1932	2,710	391,561	8,470	1,518

ACRES

	Wheat	Barley	Buckwheat	Corn
1949*	27,736	6,037	176	271
1948	24,108	6,493	186	262
1947	24,251	7,455	290	176
1946	24,076	6,359	218	253
1945	23,414	7,350	281	237
1944	23,284	7,291	258	279
1943	16,849	8,297	265	235
1942	21,586	6,972	229	258
1941	21,882	5,304	258	329
1940	28,726	4,242	326	186
1939	26,756	4,347	336	192
1938	25,930	4,453	370	180
1937	25,570	4,331	395	166
1936	25,299	4,432	386	164
1935	24,116	3,886	385	167
1934	23,965	3,612	407	161
1933	25,991	3,559	398	136
1932	27,182	3,769	389	136
	Flaxseed	Oats	Rye	Peas
1949*	371	11,299	1,182	59
1948	1,915	11,291	2,102	82
1947	1,571	11,949	1,168	126
1946	841	12,074	725	127
1945	1,059	14,393	487	93
1944	1,323	14,316	668	84
1943	2,948	15,487	576	103
1942	1,492	13,782	1,224	85
1941	996	13,265	955	86
1940	397	12,396	1,036	82
1939	307	12,788	1,102	76
1938	218	13,018	741	80
1937	241	13,068	694	84
1936	468	13,118	635	92
1935	216	14,090	719	94
1934	227	13,731	684	95
1933	243	13,529	543	85
1932	481	13,148	774	85

*Preliminary.

U.S. Spring Wheat Seeded

Note: Estimates of acreage sown compared with revised estimate of acreage in previous year. 000's omitted. **Source: USDA**

State	All spring wheat 1948	1949	Durum wheat 1948	1949	Other spring wheat 1948	1949
N. Y.	5	4	....	....	5	4
Illinois	9	9	....	....	9	9
Wis.	93	86			93	86
Minn.	987	1,211	63	97	924	1,114
Iowa	13	16		....	13	16
N. D.	9,982	10,942	2,913	3,236	7,070	7,706
S. D.	3,741	4,075	269	360	3,472	3,715
Neb.	86	90			86	90
Mont.	2,533	4,230			2,533	4,230
Idaho	388	559			388	559
Wyo.	92	82			92	82
Colo.	116	224			116	224
N. M.	22	22			22	22
Utah	89	73			89	73
Nev.	14	18			14	18
Wash.	492	897			492	897
Oregon	225	297			225	297
U.S.	20,913	22,628	3,246	3,692	16,994	18,936

World Barley Production, Yield and Acreage

Note: 000's omitted **Source: USDA**

Continent and country	Acreage† Average 1940-44	1947	1948	1949¶	Yield per acre‡ Av. 1940-44	Production Av. 1940-44	1947	1948	1949¶
	1,000 acres				bu.	1,000 bu.			
N. America—									
Canada	6,461	7,452	8,183	6,917	27.4	176,560	141,572	155,018	120,382
Mexico	391	415	418	425	13.2	5,171	4,770	5,413	5,787
U. S.	14,192	11,014	12,046	8,878	23.7	336,464	281,183	317,037	238,104
Est. total§	21,219	18,904	20,869	16,221	....	522,000	428,000	479,000	364,274
Europe—									
Austria	243	201	283	311	30.1	11,138	6,209	7,850	8,824
Belgium	137	137	216	194	47.4	6,273	14,800	11,860	11,286
Bulgaria	561	715	....	....	19.8	11,209	11,999	....	....
Czechoslovakia	1,580	1,450	1,424	1,480	30.8	48,980	37,000	42,233	45,000
Denmark	884	1,153	1,296	1,315	58.8	53,581	81,523	87,211	71,479
Finland	294	265	245	230	21.7	6,273	7,800	10,000	9,100
France	1,786	2,369	2,027	2,174	23.7	41,309	44,000	59,474	64,320
Greece	480	....	531	478	12.8	5,844	....	10,374	9,381
Hungary	1,235	1,309	....	....	24.3	29,000	21,800	....	....
Ireland	172	145	179	158	43.1	7,417	4,200	6,000	8,200
Italy	474	388	438	420	17.7	11,249	6,184	11,280	14,800
Netherlands	149	149	132	121	53.8	8,412	6,175	6,500	5,487
Norway	126	162	91	104	28.4	3,338	4,009	3,886	3,124
Portugal	....	321	306	320	....	....	4,963	3,015	4,828
Rumania	1,830	....	....	....	16.2	31,890	....	....	....
Spain	4,075	3,774	3,850	3,825	18.4	75,094	70,000	71,000	78,440
Sweden	260	247	217	224	34.4	8,958	6,693	9,818	7,893
Switzerland	43	61	62	60	49.1	2,130	2,323	2,489	2,497
U. K.	1,829	2,097	2,083	2,068	35.8	66,163	73,150	91,193	86,093
Yugoslavia	1,007	....	....	....	12.6	12,699	....	....	....
Est. total§	22,484	23,446	23,120	22,649	....	619,000	533,000	627,000	671,000
U.S.S.R. (Europe & Asia)		20,200	21,100	21,100	....	....	310,000	352,000	310,000
Asia—									
Iran	1,567	1,744	1,780	1,782	21.1	33,735	32,438	39,042	36,000
Iraq	1,830	2,199	2,544	1,953	19.3	37,196	29,000	26,144	33,992
Lebanon	88	84	84	69	14.0	1,234	1,148	1,023	1,033
Palestine	418	....	....	....	9.8	3,579	....	....	....
Syria	651	862	842	....	17.8	11,588	14,224	14,833	....
Turkey	4,823	4,382	4,678	3,700	17.6	85,017	88,212	90,000	58,000
China	14,500	13,818	13,846	13,509	24.7	358,296	337,863	341,174	301,000
Manchuria	227	....	....	....	22.4	5,594	....	....	....
Indian Union**	5,814	7,852	7,589	7,549	15.3	90,151	111,853	111,570	101,747
Pakistan**	416	400	478	411	17.8	7,388	6,199	6,252	6,211
Japan	2,087	1,888	2,174	2,334	33.1	69,283	47,231	62,199	72,624
Korea	2,829	....	....	....	18.8	54,090	....	....	....
Est. total§	37,074	38,382	38,380	37,690	....	714,000	714,000	761,000	700,000
Africa—									
Algeria	2,714	1,600	2,200	2,700	8.8	23,836	17,999	41,000	42,000
Egypt	321	288	246	185	35.2	11,461	8,225	8,190	8,700
Fr. Morocco	3,138	3,020	3,437	4,109	9.8	30,148	20,000	33,500	33,000
Tunisia	1,180	942	1,328	1,230	5.5	5,880	4,593	4,593	17,453
Un. of S. Africa	128	86	86	....	15.1	1,944	1,453	1,423	....
Est. total§	10,800	8,100	8,050	8,810	....	107,000	104,000	124,000	135,000
S. America—									
Argentina	1,390	1,632	1,798	1,160	22.4	34,593	40,800	34,600	24,600
Chile	123	144	131	177	28.3	3,463	4,939	3,904	5,200
Uruguay	64	33	77	99	12.8	682	521	1,193	1,200
Est. total§	1,910	2,100	2,479	2,180	....	39,800	64,000	48,000	47,800
Oceania—									
Australia	816	939	1,049	1,059	22.7	8,226	31,721	27,000	18,000
New Zealand	32	47	36	35	36.7	1,174	1,171	1,344	1,900
Total	848		1,086	1,105	....	19,783	33,000	19,344	20,300
Est. world total§	113,920	111,649	113,782	111,649	....	2,334,000	2,186,000	2,288,000	2,208,000

Prepared or estimated on the basis of official statistics of foreign governments, reports of U.S. Foreign Service officers, results of office research or other information. Prewar estimates for countries having changed boundaries have been adjusted to conform to present boundaries. Years shown refer to years of harvest in the Northern Hemisphere. Harvests of Northern Hemisphere countries are combined with those of the Southern Hemisphere which immediately follow; thus, the crop harvested in the Northern Hemisphere in 1949 is combined with preliminary forecasts for the Southern Hemisphere harvests which began late in 1949 and end early in 1950. †Figures refer to harvested areas as far as possible. ‡Yield per acre calculated from acreage and production data shown, except for incomplete periods. ¶Revised estimates for Northern Hemisphere countries; for Southern Hemisphere, preliminary forecasts based largely on acreage and weather conditions to date. §Estimated totals, which in the case of production, are rounded to millions, include allowances for any missing data for countries shown and for other producing countries not shown. **Estimates for reporting areas only. Allowances for non-reporting areas, not shown, are included in estimated total for Asia.

U.S. Buckwheat Production and Acreage by States

Note: By calendar years, 000's omitted. **Source: USDA**

State	Acreage harvested Average 1938-47	1948	1949	Yield per acre, bu. Average 1938-47	1948	1949	Production, bu. Average 1938-47	1948	1949
Maine	7	7	9	16.2	20.0	21.0	112	140	189
New York	131	92	86	16.0	19.0	20.4	2,128	1,767	1,768
Pennsylvania	131	106	92	18.1	22.0	20.2	2,366	2,332	1,858
Ohio	17	16	11	17.6	18.5	22.5	299	296	248
Indiana	11	2	7	13.8	15.0	14.5	150	30	102
Illinois	6	4	2	13.2	17.0	16.0	86	68	32
Michigan	19	27	19	15.0	13.0	14.5	315	351	276
Wisconsin	17	16	15	14.0	15.0	15.5	324	240	232
Minnesota	34	29	23	13.4	15.6	14.3	461	452	327
North Dakota	3	3	4	12.8	16.0	12.0	47	48	48
South Dakota	4	6	3	12.0	16.0	8.0	41	84	24
Maryland	5	4	4	19.8	17.0	18.5	100	68	74
Virginia	8	7	6	15.8	18.0	17.5	119	126	105
West Virginia	11	6	5	18.1	19.0	19.0	203	114	95
Tennessee	3	12	12	14.4	16.3	17.3	74	198	210
United States	418	338	279	16.7	18.3	18.8	7,076	6,302	5,244

U.S. Wheat Crop and Value

Note: By calendar years, 000's omitted. **Source: USDA**

Winter wheat	Acres	Crop Bu. acre	Total bu.	Value bu.
1950	*52,853	16.7	884,630	$....
1949	53,463	18.3	893,888	1.930
1948	53,616	20.0	1,067,960	2.006
1947	54,835	19.6	1,068,940	2.280
1946	45,750	18.1	876,735	1.900
1945	46,989	17.4	817,894	1.589
1944	41,132	18.3	753,901	1.430
1943	34,865	15.8	537,476	1.350
1942	36,926	19.5	702,169	1.131
1941	38,774	16.9	673,737	.947
1940	36,086	16.5	592,889	.880
1939	37,681	15.6	563,672	.694
1938	49,547	13.9	686,175	.573
1937	47,672	14.3	659,974	.976
1936	37,944	14.0	525,092	1.029
1935	33,602	14.0	469,412	.827
1934	34,683	12.8	438,668	.844
1933	26,368	13.1	376,093	.777
1932	34,201	13.8	481,211	.391
1931	41,888	19.8	823,613	.381
1930	41,111	15.4	633,009	.602
1929	41,241	14.2	587,987	1.043
1928	36,913	15.7	578,964	1.036
1927	38,190	14.4	548,159	1.165
1926	37,887	16.8	631,897	1.260
1925	31,984	12.8	409,818	1.479
1924	35,418	16.2	573,563	1.316
1923	39,718	14.3	565,200	.945
1922	41,408	13.7	571,459	1.042
1921	43,180	14.0	602,793	.943
1920	40,499	15.2	613,227	1.471

*Seeded acreage.

Spring wheat, including durum—	Acres	Bu. acre	Total bu.	Value bu.
1949	21,886	11.4	244,766	$1.875
1948	19,582	12.4	242,471	1.949
1947	19,564	15.2	299,139	2.146
1946	18,725	15.1	282,221	1.909
1945	18,331	16.6	290,390	1.500
1944	18,624	16.5	308,219	1.379
1943	16,792	16.3	274,137	1.330
1942	15,753	19.4	305,282	1.066
1941	16,287	16.6	268,240	.914
1940	17,178	13.0	221,637	.661
1939	14,868	11.7	175,138	.688
1938	18,650	12.0	224,795	.527
1937	17,994	10.0	180,249	.904
1936	11,981	8.5	100,377	1.062
1935	17,793	9.8	159,815	.841
1934	8,864	10.1	87,389	.867
1933	18,872	9.1	171,803	.673
1932	21,786	13.3	294,798	.345
1931	14,216	8.3	116,725	.484
1930	21,420	13.7	293,713	.618
1929	22,151	10.7	237,126	1.019
1928	22,373	15.8	354,347	.897
1927	21,433	15.3	326,871	1.089
1926	19,619	10.5	200,604	1.202
1925	20,479	13.1	266,081	1.291
1924	17,846	15.7	268,864	1.206
1923	18,308	11.2	204,163	.883
1922	18,746	13.0	275,190	.882
1921	21,606	10.2	218,170	.792
1920	21,868	10.5	230,910	1.813

All wheat—	Acres	Bu. acre	Total bu.	Value bu.
1949	74,751	14.9	1,146,463	$1.880
1948	73,017	16.6	1,313,534	1.990
1947	74,369	18.4	1,367,186	2.290
1946	67,075	17.2	1,152,946	1.910
1945	65,120	17.0	1,108,224	1.500
1944	59,749	17.7	1,060,111	1.410
1943	51,355	16.4	843,813	1.360
1942	49,773	19.5	969,381	1.100
1941	55,831	16.8	941,970	.944
1940	53,273	15.3	814,646	.683
1939	52,669	14.1	741,210	.691
1938	69,197	13.3	919,913	.563
1937	64,169	13.6	873,914	.962
1936	49,125	12.8	629,880	1.025
1935	51,308	12.2	628,227	.831
1934	43,267	12.1	526,052	.848
1933	49,424	11.2	552,215	.744
1932	57,851	13.1	756,307	.383
1931	57,784	16.3	941,540	.391
1930	62,637	14.2	886,522	.671
1929	63,392	13.0	824,183	1.030
1928	59,226	15.4	914,373	.991
1927	59,630	14.7	875,059	1.117
1926	56,618	14.7	832,213	1.307
1925	52,443	12.8	668,700	1.446
1924	52,463	16.6	841,617	1.250
1923	58,920	13.2	759,482	.914
1922	61,397	13.8	846,649	.969
1921	64,566	12.7	818,964	.941
1920	62,358	13.6	842,077	1.432

Brown-Duvel Moisture Tester

This is a distillation type of moisture tester in which a certain quantity of grain or ground material is cooked or heated in mineral oil of certain quality and according to prescribed directions as to length of time of heating and the final temperature attained. The final temperature used varies somewhat for different commodities or materials. During the heating the moisture in the grain or material is distilled off, collected and measured.

World Oats Production, Yield and Acreage

Note: 000's omitted **Source: USDA**

Continent and country	Acreage† Average 1940-44	Acreage† 1947	Acreage† 1948	Acreage† 1949‡	Yield per acre‡ avg. 1940-44 (bu.)	Production Avg. 1940-44	Production 1947	Production 1948	Production 1949‡
	1,000 acres				bu.	1,000 bu.			
N. America—									
Canada‡	13,414	11,048	11,209	11,388	24.1	482,944	274,874	359,807	316,559
Mexico	67	164	85	118	19.5	1,408	3,273	1,340	2,942
U.S.	39,072	38,451	40,181	40,500	31.8	1,212,118	1,198,122	1,491,752	1,322,924
Est. total**	53,740	49,810	51,470	52,087	...	1,674,000	1,480,000	1,857,000	1,642,444
Europe—									
Austria	347	330	324	345	37.8	21,000	14,300	19,800	22,900
Belgium	290	319	353	489	79.2	22,967	41,300	26,300	38,744
Czechoslovakia	1,888	1,215	1,511	1,481	45.1	76,000	51,300	51,500	88,000
Denmark	843	517	814	781	76.1	64,112	40,089	64,087	65,193
Finland	920	872	1,024	1,072	34.8	32,027	31,000	45,000	44,500
France	8,399	8,451	8,958	8,871	24.9	220,000	196,300	232,869	218,382
Greece	310	...	332	318	29.1	7,023	...	7,188	5,888
Hungary	883	884	...	...	38.4	34,000	15,500		
Ireland	844	870	850	760	42.2	43,332	45,599	55,447	42,000
Italy	1,886	1,197	1,172	1,158	26.4	26,404	31,343	38,049	29,200
Luxembourg	56	69	61	51	41.9	2,171	3,489	2,053	2,344
Netherlands	291	404	350	333	62.8	14,287	23,912	21,781	18,598
Norway	328	187	182	208	45.7	10,318	9,363	12,188	12,443
Portugal	...	711	737	783	...	...	7,944	6,453	7,530
Spain	1,390	1,450	1,476	1,470	21.2	29,000	28,080	38,500	35,000
Sweden	1,419	1,208	1,319	1,148	28.4	32,120	16,722	51,881	55,894
Switzerland	42	82	84	77	86.1	3,650	3,318	4,488	4,728
U.K.	3,784	3,308	3,335	3,163	58.4	219,920	173,830	207,418	187,428
Est. total**	34,920	32,780	33,140	31,940	...	1,089,000	1,163,999	1,324,007	1,371,000
U.S.S.R. (Europe & Asia)	...	36,100	38,100	37,000			680,000	745,000	775,000
Asia—									
Turkey	871	870	847	860	21.8	18,779	12,139	21,000	13,000
China	...	2,319	2,299	2,311			48,128	33,932	40,000
Japan	351	181	200	220	26.1	9,838	4,414	4,487	7,154
Est. total**	4,800	3,930	3,910	3,890	...	104,000	79,000	86,000	83,000
Africa—									
Algeria	514	400	412	482	19.2	10,479	3,100	10,299	11,311
Fr. Morocco	81	91	107	114	26.7	3,338	2,391	3,381	3,321
Tunisia	78	60	66	74	17.8	1,380	400	550	1,721
Un. of S. Africa	...	800	800	...	...	7,238	14,019	8,722	...
Est. total**	1,110	1,342	1,310	1,500	...	33,000	19,000	32,000	19,000
Argentina	1,865	1,846	1,700	1,500	18.7	48,527	33,000	48,008	40,000
Chile	218	232	250	245	17.1	4,000	3,749	3,801	4,300
Uruguay	274	330	180	322	13.5	3,790	3,159	3,278	3,838
Est. total**	2,500	2,600	2,170	2,080	...	58,000	57,000	54,800	53,000
Australia	1,619	2,381	1,880	1,740	17.4	28,174	38,874	33,000	24,000
New Zealand	91	83	83	83	41.2	3,633	3,347	2,781	2,800
Total	1,689	2,466	1,963	1,783	...	31,821	44,170	35,781	29,830
Est. world total**	111,200	117,830	128,400	130,130	...	4,398,000	3,740,000	4,288,000	3,980,000

Prepared or estimated on the basis of official statistics of foreign governments, reports of U.S. Foreign Service officers, results of office research or other information. Prewar estimates for countries having changed boundaries have been adjusted to conform to present boundaries. Years shown refer to years of harvest in the Northern Hemisphere. Harvests of Northern Hemisphere countries are combined with those of the Southern Hemisphere which immediately follow; thus the crop harvested in the Northern Hemisphere in 1949 is combined with preliminary forecasts for the Southern Hemisphere harvests which began late in 1949 and end early in 1950. †Figures refer to harvested areas as far as possible. ‡Yield per acre calculated from acreage and production data shown, except for incomplete periods. ‡Revised estimates for Northern Hemisphere countries; for Southern Hemisphere, preliminary forecasts based largely on acreage and weather conditions to date. ‡Production and yield reported in bushels of 34 lb. **Estimated totals, which in the case of production are rounded to millions, include allowances for any missing data for countries shown and for other countries not shown.

U.S. Soybean Production and Acreage by States

Note: Acreage and Output, 000's omitted **Source: USDA**

State—	Acreage, harvested* Average 1938-47	Acreage 1948	Acreage 1949	Yield per acre, bu. Average 1938-47	Yield 1948	Yield 1949	Production, bu. Average 1938-47	Production 1948	Production 1949
New York	10	5	5	14.8	18.0	18.0	156	90	90
New Jersey	10	11	12	15.5	18.0	16.5	147	187	198
Pennsylvania	22	14	16	15.4	16.0	17.0	331	224	272
Ohio	831	958	829	18.3	20.2	24.5	15,278	19,514	20,281
Indiana	1,128	1,158	1,441	18.2	21.0	23.0	20,888	23,088	33,143
Illinois	2,852	2,554	2,177	21.2	24.0	26.0	59,831	60,496	82,602
Michigan	82	65	66	16.2	17.0	22.0	1,464	1,134	1,452
Wisconsin	24	11	15	15.3	15.0	16.5	179	165	248
Minnesota	283	911	709	15.0	16.5	17.5	4,183	15,114	12,838
Iowa	1,348	1,584	1,275	19.5	22.5	22.5	26,484	35,190	28,774
Missouri	458	790	457	14.4	20.0	21.0	6,574	15,800	17,881
North Dakota	16	7	12	11.7	13.0	12.0	119	91	144
South Dakota	10	31	19	12.6	18.0	12.0	126	558	227
Nebraska	13	20	22	11.0	15.9	22.0	135	319	484
Kansas	176	187	237	10.0	15.0	14.5	1,471	2,805	3,434
Delaware	32	31	44	15.6	12.0	15.0	484	412	660
Maryland	29	25	34	13.4	16.0	16.0	372	372	544
Virginia	60	100	117	14.1	18.0	18.0	881	1,749	2,106
West Virginia	1	1	1	12.5	11.0	15.0	11	11	15
North Carolina	243	284	244	12.8	14.0	16.0	3,085	3,541	3,940
South Carolina	11	19	20	7.8	10.0	11.0	87	196	220
Georgia	11	12	11	6.6	7.4	9.9	76	111	112
Kentucky	59	119	119	14.2	19.0	14.5	881	2,288	1,535
Tennessee	28	60	60	12.2	20.0	18.0	335	1,540	1,140
Alabama	52	54	81	10.0	20.0	17.5	516	1,106	1,427
Mississippi	78	132	106	11.8	18.0	16.2	888	2,381	1,671
Arkansas	174	283	281	13.6	19.3	20.0	2,318	5,319	5,555
Louisiana	38	30	35	12.8	14.0	15.0	489	480	525
Oklahoma	9	6	11	7.6	11.0	11.0	38	66	145
United States	8,525	10,330	9,837	18.7	21.4	22.1	166,381	223,992	222,281

*Equivalent solid acreage. (Acreage grown alone, with an allowance for acreage grown with other crops). †Short-time average.

U.S. Crop Report Dates

Following are the release dates for crop and livestock reports for 1950 issued by the U.S. Department of Agriculture. All reports released at Washington at 3 p.m. c.s.t. unless otherwise noted.

Jan. 10—Stocks of corn for grain, Jan. 1. Stocks of grain on farms Jan. 1. Flaxseed acreage. Poultry and egg production. Layers on farms.

Jan. 12—Sheep and lambs on feed for market Jan. 1.

Jan. 13—Cattle on feed for market Jan. 1.

Jan. 24—Grain stocks in all positions.

Jan. 31—Soybean and flaxseed stocks in all positions.

Feb. 10—Grain fed per milk cow. Poultry and egg production. Layers on farms.

Feb. 14—Number and value of livestock, including poultry on farms, Jan. 1.

March 9—Early lamb crop March 1 (10 states).

March 10—Poultry and egg production.

March 13—Young chickens and potential layers on farms in 1949 and 1950.

March 20—Prospective plantings for 1950.

April 10—Indicated production winter wheat. Indicated percentage abandonment winter wheat seedings. Condition of rye. Stocks of grain April 1. Amount of grain fed per milk cow. Poultry and egg production.

April 19—Cattle on feed for market (corn belt states) April 1.

April 25—Grain stocks in all positions.

April 26—Soybean and flaxseed stocks in all positions.

May 10—Acreage remaining for harvest May 1. Yield per acre and indicated production winter wheat and rye. Condition of oats. Poultry and egg production.

June 9—Indicated production of grains. Grain fed per milk cow. Poultry and egg production.

June 21—Spring pig crop and fall farrowings indicated by breeding intentions June 1.

July 11—Stocks of grain July 1. Planted acreage and indicated production for corn, winter wheat, spring wheat, oats, barley, flaxseed, sorghums. Acreage for harvest, indicated yield July 1. Poultry and egg production.

July 19—Cattle on feed for market (corn belt states) July 1.

July 25—Grain stocks in all positions.

July 28—Chickens raised on farms. Preliminary estimates for 1950.

July 31—Soybean and flaxseed stocks in all positions.

Aug. 1—U.S. lamb crop, 1950.

Aug. 10—Indicated yield per acre Aug. 1 and indicated production. Grain fed per milk cow. Poultry and egg production. Layers on farms.

Sept. 11—Indicated yield per acre Sept. 1 and indicated production. Condition of pasture. Poultry and egg production. Layers on farms.

Oct. 10—Indicated yield per acre and indicated production. Stocks of corn for grain and wheat, oats, barley, rye and soybeans on farms. Grain fed per milk cow. Poultry and egg production. Layers on farms. Compositions of farm flocks Oct. 1.

Oct. 11—Cattle feeding situation Oct. 1.

Oct. 13—Lamb feeding situation Oct. 1.

Oct. 24—Grain stocks in all positions.

Oct. 31—Soybean and flaxseed stocks in all positions.

Nov. 10—Indicated crop yield per acre and indicated production. Condition of pasture. Poultry and egg production. Layers on farms.

Nov. 15—Cattle feeding situation Nov. 1.

Nov. 16—Lamb feeding situation Nov. 1.

Dec. 11—Grain fed per milk cow. Poultry and egg production. Layers on farms.

Dec. 12—Cattle feeding situation Dec. 1.

Dec. 13—Lamb feeding situation Dec. 1.

Dec. 18—Annual summary of acreage, yield per acre and production of all crops. Season average prices and value of production of principal crops.

Dec. 20—Seeded acreage and indicated production of winter wheat and acreage and condition of rye for harvest in 1951.

Dec. 21—Fall pig crop 1950 and spring farrowings in 1951 indicated by breeding intentions.

The Incas of Peru, faced with the gigantic problem of erosion on towering mountain slopes, carried rich earth for hundreds of miles on the backs of llamas and built enormous walls of masonry to guard against floods—with the result that even today, after 4,000 years of steady cultivation, their descendants are still living off the plots.

World Corn Production, Yield and Acreage

Note: 000's omitted **Source: USDA**

Continent and country	Acreage† Average 1940-44	Acreage† 1947	Acreage† 1948	Acreage† 1949§	Yield per acre‡ Ave. 1940-44	Production Ave. 1940-44	Production 1947	Production 1948	Production 1949§
	1,000 acres				Bu.	1,000 bu.			
N. America—									
Canada	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Guatemala	[illegible]	....	....	....	[illegible]	[illegible]	....	....	....
Honduras	[illegible]				[illegible]	[illegible]			
Mexico	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nicaragua	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]	
U. S.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cuba	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]	....
Est. total**	[illegible]	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]
Europe—									
Albania	[illegible]	[illegible]	....	....	[illegible]	[illegible]	[illegible]	....	....
Austria	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Bulgaria	[illegible]	[illegible]	....	....	[illegible]	[illegible]	[illegible]	....	....
Czechoslovakia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
France	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Germany	[illegible]	....	....	....	[illegible]	[illegible]	....	....	....
Greece	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hungary	[illegible]	[illegible]	....	....	[illegible]	[illegible]	[illegible]	....	....
Italy	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Portugal	....	[illegible]	[illegible]	[illegible]	....	....	[illegible]	[illegible]	[illegible]
Rumania	[illegible]	....	....	....	[illegible]	[illegible]	....	....	....
Spain	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Yugoslavia	[illegible]	....	....	....	[illegible]	[illegible]	....	....	....
Est. total**	[illegible]	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]
U.S.S.R. (Europe & Asia)	....	[illegible]	[illegible]	....	....	....	[illegible]	[illegible]	....
Asia—									
Turkey	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Burma	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	....	....	....
China	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]	....
Manchuria	[illegible]	....	....	....	[illegible]	[illegible]	....	....	....
Fr. Indochina	[illegible]	....	....	....	[illegible]	[illegible]	....	....	....
Indian Un.††	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pakistan††	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Japan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	....
Korea	[illegible]	....	....	....	[illegible]	[illegible]	....	....	....
Java & Madura	[illegible]	....	....	....	[illegible]	[illegible]	....	....	....
Phil. Islands	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Est. total**	[illegible]	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]
Africa—									
Belgian Congo	[illegible]	[illegible]	....	....	[illegible]	[illegible]	[illegible]	....	....
Kenya‖	[illegible]	....	....	....	[illegible]	[illegible]	[illegible]	....	....
Basutoland	[illegible]	....	....	....	[illegible]	[illegible]	[illegible]	....	....
Egypt	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]	....
Fr. Morocco	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fr. W. Africa	[illegible]	....	....	....	[illegible]	[illegible]	....	....	....
Madagascar	[illegible]	....	....	....	[illegible]	[illegible]	....	....	....
Angola	[illegible]	....	....	....	[illegible]	[illegible]	[illegible]	....	....
So. Rhodesia‖	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]	....
Un. of S. Africa	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]	....
Est. total**	[illegible]	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]
S. America—									
Argentina	[illegible]	[illegible]	....		[illegible]	[illegible]	[illegible]	[illegible]	....
Brazil	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	....
Chile	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	....
Colombia	[illegible]	[illegible]	....	....	[illegible]	[illegible]	[illegible]	[illegible]	....
Uruguay	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]	....
Est. total**	[illegible]	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]
Oceania—									
Australia	[illegible]	[illegible]	....	....	[illegible]	[illegible]	[illegible]	[illegible]	....
New Zealand	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]	....
Est. total**	[illegible]	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]
Est. world total**	[illegible]	[illegible]	[illegible]	[illegible]	....	[illegible]	[illegible]	[illegible]	[illegible]

Prepared or estimated on the basis of official statistics of foreign governments, reports of U.S. Foreign Service officers, results of office research or other information. Prewar estimates for countries having changed boundaries have been adjusted to conform to present boundaries. Years shown refer to years of harvest in the Northern Hemisphere. Harvests of Northern Hemisphere countries are combined with those of the Southern Hemisphere which follow; thus, the crop harvested in the Northern Hemisphere in 1949 is combined with preliminary forecasts for the Southern Hemisphere harvest which will begin early in 1950. †Figures refer to harvested area as far as possible. ‡Yield per acre calculated from acreage and production data shown, except for incomplete periods. §Preliminary estimates for Northern Hemisphere countries; for the Southern Hemisphere, preliminary forecasts. ‖Average of less than five years. **Estimated totals, which in the case of production are rounded to millions, include allowances for any missing data for countries shown and for other producing countries not shown. ††Estimates for reporting areas only, allowances for non-reporting area, not shown, are included in estimated total for Asia. ‡‡European countries only.

U.S. Average Rainfall in the Wheat Belt

Note: January through October values are state averages for the period of record through 1949, values for November and December extend through 1948. **Source: U.S. Dept. of Commerce**

	Minn.	N.D.	S.D.	Mont.	Kan.	Okla.	Texas	Neb.	Colo.	Iowa	Ill.	Mo.	Ohio	Ind.
January	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
February	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
March	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
April	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
May	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
June	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
July	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
August	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
September	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
October	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
November	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
December	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Wheat in Canadian Provinces

Note: By crop years in bushels and acres. Source: Dominion Bureau of Statistics.

MANITOBA

Year—	Acreage, acres	Crop, bus	Yield per acre, bus
1949*	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]
1937	[illegible]	[illegible]	[illegible]
1936	[illegible]	[illegible]	[illegible]
1935	[illegible]	[illegible]	[illegible]

*Preliminary.

SASKATCHEWAN

Year—	Acreage, acres	Crop, bus	Yield per acre, bus
1949*	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]
1937	[illegible]	[illegible]	[illegible]
1936	[illegible]	[illegible]	[illegible]
1935	[illegible]	[illegible]	[illegible]

*Preliminary.

ALBERTA

Year—	Acreage, acres	Crop, bus	Yield per acre, bus
1949*	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]
1937	[illegible]	[illegible]	[illegible]
1936	[illegible]	[illegible]	[illegible]
1935	[illegible]	[illegible]	[illegible]

*Preliminary.

TOTALS, THREE PROVINCES

Year—	Acreage, acres	Crop, bus	Yield per acre, bus
1949*	[illegible]	[illegible]	[illegible]
1948	[illegible]	[illegible]	[illegible]
1947	[illegible]	[illegible]	[illegible]
1946	[illegible]	[illegible]	[illegible]
1945	[illegible]	[illegible]	[illegible]
1944	[illegible]	[illegible]	[illegible]
1943	[illegible]	[illegible]	[illegible]
1942	[illegible]	[illegible]	[illegible]
1941	[illegible]	[illegible]	[illegible]
1940	[illegible]	[illegible]	[illegible]
1939	[illegible]	[illegible]	[illegible]
1938	[illegible]	[illegible]	[illegible]
1937	[illegible]	[illegible]	[illegible]
1936	[illegible]	[illegible]	[illegible]
1935	[illegible]	[illegible]	[illegible]

*Preliminary.

U.S. Wheat Production

Note: Wheat production in principal producing states, in million bushels. **Source: USDA**

	1949	1948	1947	1946	1945	1944	1943
Pa.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ohio	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ind.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ill.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mich.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Minn.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iowa	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mo.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
N. D.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
S. D.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Neb.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kans.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Va.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Md.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Okla.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Texas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mont.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Idaho	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Colo.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wash.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ore.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Calif.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

U.S. Rye Production and Acreage by States

Note: By calendar years, 000's omitted. **Source: USDA**

State—	Acreage, harvested: Average 1938-47	1948	1949	Yield per acre, bu.: Average 1938-47	1948	1949	Production, bu.: Average 1926-37	1948	1949
New York	18	18	15	17.4	19.5	16.0	275	343	245
New Jersey	16	13	13	16.9	17.4	17.3	265	228	228
Pennsylvania	46	16	23	14.7	14.5	15.5	668	232	202
Ohio	33	20	15	16.5	18.0	18.0	589	360	274
Indiana	100	54	58	13.2	15.5	14.0	1,330	828	812
Illinois	55	55	50	12.8	15.4	15.0	769	822	750
Michigan	74	60	66	13.4	16.0	15.1	941	1,280	920
Wisconsin	147	92	92	11.7	12.0	13.0	1,792	1,104	1,196
Minnesota	261	129	170	13.6	15.0	15.1	3,552	1,940	2,550
Iowa	32	17	12	15.0	15.5	14.0	494	264	168
Missouri	41	35	35	12.1	15.0	14.0	492	525	490
North Dakota	343	491	229	11.9	12.0	12.0	4,148	6,012	2,748
South Dakota	321	392	247	13.2	12.0	10.0	4,484	4,704	2,479
Nebraska	385	225	188	10.9	10.0	8.5	4,017	2,260	1,606
Kansas	82	34	35	10.7	11.5	10.2	878	391	373
Delaware	14	20	15	13.3	11.5	13.0	196	229	180
Maryland	18	21	19	14.4	13.0	14.0	260	273	266
Virginia	39	32	25	12.6	12.8	15.0	490	410	375
West Virginia	3	2	2	13.0	13.0	13.0	39	26	26
North Carolina	37	22	18	10.5	12.5	10.5	407	275	200
South Carolina	18	8	9	9.5	9.5	9.5	173	76	86
Georgia	15	6	5	8.5	10.0	10.0	124	60	50
Kentucky	24	28	27	12.7	15.0	14.0	314	420	378
Tennessee	27	20	20	9.8	11.5	10.5	261	230	210
Oklahoma	35	38	31	9.2	9.5	9.0	792	342	287
Texas	19	30	28	9.4	7.0	8.0	177	210	204
Montana	37	30	19	13.3	13.5	9.0	487	405	162
Idaho	6	4	3	14.6	13.0	13.0	81	52	41
Wyoming	17	7	7	10.3	7.0	12.0	174	49	84
Colorado	74	30	26	9.8	9.0	11.0	752	269	286
New Mexico	5	3	2	9.3	11.0	11.0	41	33	22
Utah	7	5	4	10.0	14.0	9.0	74	70	72
Washington	20	16	12	11.6	13.0	10.0	241	224	120
Oregon	26	22	27	12.2	14.5	11.0	309	321	297
California	13	17	12	11.7	12.0	8.0	156	204	104
United States	2,874	2,094	1,559	12.1	12.6	12.0	35,199	26,449	18,687

U.S. Acreage Sown to Rye in Principal States

Note: Acreage sown in fall, 000's omitted **Source: USDA**

State—	Acreage seeded*: Crops of 1938-47	Crop of 1948	Crop of 1949	Crop of 1950	Condition Dec. 1 (per cent): Ave. 1937-46 (crops of 1938-47)	1947 (crop of 1948)	1948 (crop of 1949)	1949 (crop of 1950)
New York	66	72	89	100	89	87	91	92
New Jersey	65	61	66	69	90	87	91	90
Pennsylvania	42	31	31	35	88	83	93	92
Ohio	104	87	87	96	87	91	93	91
Indiana	208	150	140	182	87	92	94	91
Illinois	131	113	119	125	88	94	95	92
Michigan	124	132	159	160	89	96	92	95
Wisconsin	201	112	118	118	90	94	89	91
Minnesota	307	278	290	180	86	92	88	90
Iowa	78	58	41	35	86	69	95	91
Montana	125	105	117	135	80	89	91	87
North Dakota	879	481	283	278	73	86	94	88
South Dakota	734	470	399	415	77	86	42	89
Nebraska	615	362	303	359	78	82	84	90
Kansas	169	90	61	66	88	69	87	91
Delaware	26	33	29	32	90	91	90	91
Maryland	58	58	65	61	87	86	94	92
Virginia	162	132	153	120	83	84	92	91
West Virginia	12	8	6	6	84	84	92	91
North Carolina	174	117	118	111	84	91	89	87
South Carolina	99	39	39	35	76	66	81	77
Georgia	64	38	35	76	76	73	82	79
Kentucky	119	156	156	129	85	87	90	95
Tennessee	152	130	105	94	82	81	89	88
Oklahoma	250	194	83	149	73	63	69	95
Texas	41	84	109	120	74	66	16	79
Montana	61	42	30	32	64	61	74	81
Idaho	15	18	18	15	85	108	88	87
Wyoming	36	27	27	27	83	59	84	86
Colorado	128	59	66	70	79	63	70	89
New Mexico	13	7	5	6	...	67	56	71
Utah	15	13	15	15	98	101	85	94
Washington	52	48	42	41	88	96	89	89
Oregon	139	136	132	152	91	97	94	77
California	27	32	29	28	88	78	74	92
United States	5,287	3,756	3,291	3,599	81	83	88	88

*Total acreage seeded for all purposes.

U.S. Wheat Production by Various Classes

Note: 000's omitted **Source: USDA**

Year	Winter: Hard red	Winter: Soft red	Spring: Hard red	Spring: Durum	White: Winter	White: Spring	Total white	Total
1949	446,338	258,799	173,061	38,467	95,611	32,217	127,828	1,146,463
1948	627,761	257,813	276,000	45,479	112,685	33,487	146,172	1,313,534
1947	788,329	238,641	219,777	44,985	91,886	34,431	126,318	1,367,186
1946	679,536	195,711	214,958	36,337	95,118	31,149	126,267	1,153,046
1945	620,643	213,359	220,849	33,295	83,641	36,256	119,897	1,108,224
1944	485,535	223,612	244,087	32,789	66,429	36,391	102,820	1,072,177
1943	350,535	131,287	221,618	36,544	41,546	41,480	83,026	841,023
1942	473,494	159,925	214,906	45,491	60,150	17,328	77,478	974,176
1941	384,986	209,398	267,462	42,660	66,315	22,296	88,610	943,127
1940	329,797	204,246	158,720	34,304	52,749	30,385	83,135	813,221
1939	359,300	200,413	170,674	35,083	54,028	25,937	79,965	751,435
1938	399,224	284,071	157,202	42,206	62,838	44,101	106,939	931,702
1937	375,271	227,656	141,385	19,928	64,612	49,536	114,148	873,876
1936	259,773	207,419	50,742	8,828	52,689	47,314	100,003	626,766
1935	203,232	294,233	107,975	24,759	57,831	38,291	96,122	626,344
1934	207,800	155,002	33,279	6,891	41,501	28,260	69,761	526,393
1933	174,897	162,315	136,469	17,816	37,209	30,989	68,698	551,681
1932	260,450	159,214	180,939	42,352	62,131	22,941	85,072	756,927
1931	516,038	262,906	72,430	22,999	49,354	21,740	71,094	941,474

U.S. Crops and Value

Note: By calendar years, 000's omitted. **Source: USDA**

	Acres	Crop: Bu. acre	Crop: Total bu.	Value bu.
Corn—				
1949	85,735	38.9	3,377,790	$1.180
1948	84,967	42.8	3,650,792	1.276
1947	82,833	28.4	2,383,970	2.160
1946	88,439	36.7	3,249,950	1.560
1945	88,079	32.7	2,880,933	1.270
1944	94,014	32.8	3,088,118	1.086
1943	95,069	32.2	3,065,580	1.120
1942	87,267	35.1	3,068,362	.917
1941	86,357	31.3	2,651,889	.751
1940	86,429	28.4	2,457,146	.618
1939	88,279	28.2	2,580,985	.568
1938	92,160	27.7	2,548,753	.486
1937	93,926	28.1	2,642,978	.518
1936	92,154	16.2	1,505,689	1.044
1935	95,974	24.0	2,299,262	.656
1934	92,193	15.7	1,448,920	.815
1933	106,816	22.6	2,397,593	.528
1932	110,577	26.6	2,930,353	.314
1931	106,866	24.1	2,575,927	.321
1930	103,465	20.5	2,080,130	.595
1929	97,805	25.7	2,515,037	.799
1928	100,326	26.6	2,665,516	.840
1927	98,357	26.6	2,616,129	.850
1926	99,452	25.6	2,546,972	.745
1925	101,335	27.8	2,798,367	.698
1924	100,420	23.1	2,222,133	1.061
1923	101,123	28.4	2,875,292	.826
1922	100,245	27.9	2,797,506	.742
1921	103,155	28.6	2,928,442	.523
1920	101,359	30.3	3,070,604	.618
Oats—				
1949	40,560	32.8	1,322,924	$ .654
1948	40,196	37.1	1,493,204	.726
1947	38,451	31.2	1,199,422	1.016
1946	43,206	34.7	1,497,904	.810
1945	41,832	36.6	1,535,676	.667
1944	39,672	29.0	1,148,280	.709
1943	38,814	29.3	1,136,831	.732
1942	38,197	35.2	1,342,661	.484
1941	38,163	31.0	1,182,609	.411
1940	35,431	35.2	1,244,450	.301
1939	33,460	28.4	957,704	.310
1938	34,942	30.3	1,059,353	.229
1937	35,342	33.1	1,170,744	.302
1936	33,614	23.6	792,563	.449
1935	40,109	30.2	1,210,329	.264
1934	29,455	18.5	544,247	.481
1933	36,559	20.2	736,309	.335
1932	41,700	30.1	1,254,584	.157
1931	40,193	28.0	1,124,283	.213
1930	39,867	32.0	1,274,592	.322
1929	38,153	29.2	1,112,949	.418
1928	40,126	32.7	1,312,914	.407
1927	40,250	27.1	1,093,221	.471
1926	42,654	26.9	1,152,911	.400
1925	44,240	31.8	1,405,268	.389
1924	41,867	33.9	1,416,120	.479
1923	40,345	30.5	1,227,184	.407
1922	40,324	28.5	1,147,902	.374
1921	44,539	23.5	1,045,270	.322
1920	42,733	33.8	1,444,291	.535
Barley—				
1949	9,878	24.1	238,104	$1.050
1948	11,987	26.4	315,994	1.176
1947	11,914	25.3	281,133	1.730
1946	10,411	25.2	262,254	1.368
1945	10,483	25.5	266,633	1.029
1944	12,301	22.4	276,112	1.019
1943	14,900	21.7	322,913	.981
1942	16,958	25.3	429,450	.632
1941	14,278	25.4	362,568	.529
1940	13,520	22.9	311,278	.397
1939	12,739	21.8	278,193	.405
1938	10,619	24.2	256,620	.364
1937	9,868	22.3	221,858	.542
1936	8,329	17.7	147,740	.782
1935	12,426	23.2	288,667	.379
1934	6,577	17.8	117,298	.686
1933	9,641	15.9	153,879	.434
1932	13,360	22.7	298,994	.221
1931	11,181	17.9	200,280	.328
1930	12,629	23.9	301,619	.405
1929	13,564	20.7	280,637	.539
1928	12,735	25.5	324,351	.568
1927	9,463	23.3	219,971	.689
1926	7,917	21.0	166,938	.579
1925	8,146	23.6	192,466	.614
1924	7,030	23.5	165,218	.743
1923	7,151	22.2	158,994	.546
1922	6,881	23.2	162,905	.499
1921	7,074	18.5	132,702	.479
1920	7,439	23.0	171,042	.844

Certificate Final Terms

In grain sales transactions the expression "certificate final" means that the grain has been sold on the basis of grade and that the certificate of grade which accompanies the shipping document establishes the fact of its grade. Such transactions are final in that if the grade on the certificate is in accordance with the grade specified in the contract the buyer must accept the grain delivered without any recourse to arbitration for real or fancied grievances as to its commercial or industrial quality.

U.S. Oats Production, Yield & Acreage by States

Note: By calendar years, 000's omitted **Source: USDA**

State—	Acreage harvested: Average 1938-47	1948	1949	Yield per acre, bu.: Average 1938-47	1948	1949	Production, bu.: Average 1938-47	1948	1949
Maine	89	88	95	37.7	43.0	42.0	3,329	3,924	3,960
New Hampshire	7	6	5	36.3	40.0	37.0	249	240	191
Vermont	44	40	38	33.1	37.0	31.0	1,507	1,480	1,178
Massachusetts	5	5	8	31.7	34.0	31.0	184	273	248
Rhode Island	1	1	1	31.1	33.0	30.0	31	33	34
Connecticut	5	6	6	33.2	37.0	37.0	179	185	222
New York	720	769	770	31.6	40.0	29.0	22,797	30,520	22,330
New Jersey	45	41	44	29.1	35.0	34.0	1,289	1,435	1,496
Pennsylvania	835	787	821	35.5	36.0	30.0	21,294	28,146	24,630
Ohio	1,091	1,202	1,234	36.4	43.0	36.0	40,496	51,690	44,424
Indiana	1,278	1,313	1,488	33.3	43.0	36.1	43,807	56,428	53,631
Illinois	3,401	3,912	3,939	30.2	47.0	42.0	104,329	181,091	165,396
Michigan	1,328	1,473	1,375	37.4	38.5	36.0	49,619	56,671	49,700
Wisconsin	2,555	2,867	2,824	40.0	44.0	41.0	103,364	126,148	115,844
Minnesota	4,432	4,835	4,902	36.6	42.5	36.0	162,630	206,338	176,373
Iowa	5,208	6,096	6,380	36.0	45.0	40.0	201,672	273,870	259,252
Missouri	1,834	1,787	1,802	24.5	27.4	24.0	44,129	48,102	43,248
North Dakota	2,092	2,162	1,790	25.6	29.0	21.5	61,275	69,224	38,588
South Dakota	2,484	3,112	2,844	30.6	33.8	33.0	77,963	104,252	87,988
Nebraska	1,972	2,109	2,260	26.4	34.0	22.0	53,787	72,744	49,720
Kansas	1,199	1,144	881	24.9	23.4	21.1	30,295	26,312	18,942
Delaware	4	5	6	28.6	33.0	30.0	114	174	188
Maryland	38	47	64	30.4	33.1	33.0	1,152	1,546	2,084
Virginia	133	146	166	25.4	33.5	30.0	3,280	4,891	4,810
West Virginia	72	62	63	24.4	29.0	25.0	1,772	1,798	1,698
North Carolina	305	278	379	24.4	29.6	30.0	8,226	7,906	11,380
South Carolina	433	523	634	24.1	23.0	26.0	11,482	13,548	16,484
Georgia	481	529	491	22.3	26.0	30.0	11,097	13,728	14,772
Florida	23	21	18	18.0	19.0	16.0	401	399	288
Kentucky	88	102	128	21.8	27.0	26.0	1,940	2,754	3,328
Tennessee	186	205	254	23.7	28.1	25.0	4,588	5,848	6,350
Alabama	333	317	188	21.8	30.0	23.0	6,800	9,760	4,230
Mississippi	206	352	226	31.8	33.0	20.1	8,708	10,958	4,592
Arkansas	269	283	246	26.3	32.5	27.0	7,138	9,196	6,642
Louisiana	105	113	161	26.8	32.8	28.0	2,919	3,684	3,979
Oklahoma	1,346	948	473	20.1	17.2	20.0	27,274	16,206	17,490
Texas	1,404	833	1,260	23.7	18.5	27.0	32,977	14,248	34,929
Montana	384	324	278	31.2	36.5	28.0	12,102	11,834	8,081
Idaho	179	150	180	40.8	41.0	41.5	7,326	6,200	7,475
Wyoming	132	133	135	30.1	30.0	29.5	3,981	3,960	3,982
Colorado	141	194	223	30.7	32.0	33.5	3,444	6,208	7,470
New Mexico	40	38	41	21.6	21.0	23.0	801	798	943
Arizona	9	11	11	26.8	30.0	30.0	244	320	330
Utah	34	43	45	45.2	42.0	47.0	1,548	1,784	2,115
Nevada	7	9	9	40.2	41.0	40.0	291	369	360
Washington	160	145	165	45.4	43.3	47.3	7,189	6,280	6,815
Oregon	297	238	332	31.7	31.5	33.1	8,698	7,497	11,008
California	162	155	178	29.4	30.0	27.0	4,761	5,159	4,806
United States	35,147	40,184	40,145	33.1	37.1	31.9	1,124,961	1,491,304	1,322,924

U.S. Combined Wheat Production and Acreage

Note: By calendar years, 000's omitted **Source: USDA**

State—	Acreage harvested: Average 1938-47	1948	1949	Yield per acre, bu.: Average 1938-47	1948	1949	Production, bu.: Average 1938-47	1948	1949
New York	289	434	421	26.3	27.4	27.8	7,364	11,462	11,744
New Jersey	44	47	43	22.9	21.5	24.0	1,013	1,762	1,031
Pennsylvania	681	866	914	20.5	19.0	23.0	14,463	18,854	21,111
Ohio	1,934	2,351	2,353	22.1	24.5	23.2	43,274	57,648	60,062
Indiana	1,688	1,776	1,787	19.2	21.6	22.4	27,271	38,162	38,632
Illinois	1,477	1,716	2,018	18.4	24.0	24.3	28,168	41,048	48,379
Michigan	861	1,396	1,297	23.2	26.0	27.0	19,978	36,279	35,018
Wisconsin	85	133	117	19.9	22.6	22.2	1,693	2,906	2,520
Minnesota	1,425	1,059	1,201	17.1	17.6	16.7	24,660	18,607	20,058
Iowa	242	318	416	19.9	23.4	18.0	4,547	7,288	7,450
Missouri	1,414	1,782	1,846	15.2	22.0	18.0	21,090	39,276	33,036
North Dakota	8,721	9,822	10,566	16.6	16.6	10.6	127,686	160,058	111,630
South Dakota	2,990	3,848	4,074	12.5	13.1	8.4	37,539	50,391	34,276
Nebraska	3,121	4,072	3,761	17.2	20.4	14.5	56,994	83,085	54,498
Kansas	11,793	13,221	14,278	15.3	17.5	11.5	188,627	231,368	164,294
Delaware	96	65	65	19.6	14.6	18.5	1,290	948	1,203
Maryland	366	377	363	19.8	16.0	19.0	7,130	6,032	6,878
Virginia	495	497	473	15.9	18.5	16.5	7,904	9,194	7,732
West Virginia	88	81	77	16.7	19.5	18.5	1,424	1,616	1,442
North Carolina	418	390	445	14.8	16.5	13.5	6,056	6,515	5,762
South Carolina	224	228	193	15.5	14.0	10.0	3,029	3,331	1,934
Georgia	196	221	190	12.8	13.5	12.0	2,291	2,984	2,280
Kentucky	371	324	301	16.0	16.0	17.5	6,109	5,184	5,268
Tennessee	334	374	300	13.4	14.5	14.5	4,727	5,261	4,340
Alabama	12	15	12	13.9	15.5	15.0	171	232	180
Mississippi	*11	14	17	*22.0	22.0	22.0	*249	308	264
Arkansas	34	30	26	11.5	17.5	15.0	390	525	390
Oklahoma	4,019	4,421	3,825	13.3	14.5	13.0	47,428	64,061	49,725
Texas	4,309	3,828	7,083	13.2	10.5	14.2	53,944	39,194	102,838
Montana	3,652	4,475	5,140	16.9	19.2	12.2	61,190	85,718	61,966
Idaho	1,064	1,413	1,537	27.7	25.4	24.4	29,318	35,831	38,106
Wyoming	237	327	374	17.3	19.6	20.8	4,174	6,424	7,790
Colorado	1,431	2,074	2,894	18.3	21.6	17.2	27,792	44,605	49,553
New Mexico	325	279	402	11.6	9.2	12.2	3,872	2,497	4,940
Arizona	36	28	38	21.3	23.0	25.0	639	641	760
Utah	263	409	438	23.2	21.3	23.1	6,273	8,691	9,648
Nevada	16	24	24	27.2	29.5	30.5	473	708	724
Washington	2,245	2,766	2,787	23.8	28.7	21.3	57,797	79,249	57,211
Oregon	884	1,057	1,068	24.6	28.2	22.3	21,187	29,864	23,367
California	655	492	620	17.4	17.4	18.5	11,429	10,133	11,470
United States	58,524	72,017	76,751	16.6	18.0	14.0	991,950	1,313,534	1,146,463

*Short-time average.

Buckwheat

Three cultivated species of buckwheat have been recognized, only the first two of which are grown in the U.S.: (1) Common or Japanese buckwheat having large kernels with sharp edges and slightly concave sides; (2) tartary buckwheat having small kernels with rounded sides; (3) notch-seed buckwheat, which somewhat resembles common buckwheat except that the edges or angles of the hull extend into wide rounded wings, thereby giving it a wider width. This latter is cultivated in India and China. No standards or grades for marketing purposes have been established by the U.S. government for this cereal grain.

U.S. Crops and Value

Note: By calendar years, 000's omitted. **Source: USDA**

	Acres	Crop: Per acre	Total bu.	Value bu.
RYE—				
1950	*3,690			$
1949	1,850	11.0	18,697	1.239
1948	2,080	12.0	26,168	1.430
1947	2,010	12.6	25,975	2.270
1946	1,607	11.7	18,679	1.920
1945	1,804	13.9	23,002	1.860
1944	2,155	10.6	22,525	1.096
1943	2,683	10.8	28,680	.802
1942	3,782	14.0	52,929	.683
1941	3,573	12.3	43,878	.643
1940	3,204	12.4	39,725	.430
1939	3,823	10.1	38,562	.409
1938	4,097	13.7	56,000	.336
1937	3,835	12.2	48,862	.494
1936	2,486	9.8	24,239	.813
1935	4,066	14.0	56,936	.390
1934	1,821	8.2	15,226	.730
1933	2,490	8.8	20,575	.637
1932	3,360	11.7	39,055	.268
1931	3,106	10.4	32,777	.341
1930	3,644	12.4	45,383	.444
1929	3,219	11.3	36,411	.887
1928	2,250	13.0	37,019	.834
1927	3,458	14.8	51,070	.855
1926	3,419	10.3	34,900	.829
1925	3,806	11.1	42,316	.796
1924	3,841	14.9	55,446	.953
1923	4,926	11.5	55,961	.661
1922	6,707	14.0	100,000	.629
1921	4,081	12.6	61,023	.849
1920	4,628	12.9	61,915	1.484
*Seeded acreage.				
Buckwheat—				
1949	279	15.6	5,194	$ .941
1948	330	16.6	5,506	1.090
1947	513	14.2	7,324	1.860
1946	791	10.2	7,170	1.440
1945	480	18.2	6,644	1.190
1944	515	17.6	9,186	1.010
1943	505	17.5	8,530	1.260
1942	375	17.7	6,630	.848
1941	357	17.9	6,028	.674
1940	384	16.7	6,478	.536
1939	376	16.4	5,726	.622
1938	448	15.1	6,763	.539
1937	433	16.2	6,800	.667
1936	379	17.0	6,445	.651
1935	500	16.0	8,466	.604
1934	476	16.2	8,204	.681
1933	460	17.0	7,816	.566
1932	484	14.9	6,727	.434
1931	567	17.4	9,919	.433
1930	574	12.1	6,967	.788
1929	625	13.8	8,714	.882
1928	678	14.9	10,117	.689
1927	744	16.1	12,030	.689
1926	679	16.2	10,976	.871
1925	743	16.8	12,559	.873
1924	737	17.0	12,600	1.074
1923	669	16.6	11,296	.964
1922	729	16.2	11,778	.891
1921	649	18.0	11,622	.978
1920	729	16.7	12,192	1.254
Flaxseed—				
1949	4,560	8.9	43,564	$3.580
1948	4,938	11.2	54,570	5.780
1947	4,050	10.2	40,352	6.183
1946	2,432	9.3	22,593	4.049
1945	3,786	9.1	34,517	2.890
1944	2,610	8.2	21,665	2.910
1943	5,691	8.8	50,009	2.830
1942	4,600	9.3	40,970	2.360
1941	3,264	9.6	32,133	1.790
1940	3,181	9.7	30,924	1.414
1939	2,171	9.0	19,880	1.480
1938	901	8.9	8,033	1.592
1937	907	7.8	7,070	1.868
1936	1,126	4.7	5,331	1.897
1935	2,120	7.8	14,814	1.420
1934	1,001	5.7	5,710	1.780
1933	1,363	6.1	6,904	1.630
1932	1,868	6.0	11,421	.889
1931	2,481	4.8	11,792	1.176
1930	3,790	5.7	21,673	1.619
1929	3,040	5.2	15,924	2.910
1928	2,611	7.3	19,116	2.038
1927	2,782	9.1	25,174	1.916
1926	2,756	6.6	18,552	2.033
1925	3,023	7.4	22,334	2.264
1924	3,155	9.9	31,220	2.179
1923	2,016	8.2	18,083	2.125
1922	1,113	9.5	10,420	2.078
1921	1,143	7.1	8,107	1.654
1920	1,647	6.6	10,990	2.224

†Preliminary
‡Seeded

Ergot

Ergot is a fungus disease of rye, other cereals, and wild grasses, in which the grains are replaced by dark-colored growths also called ergot. Medicaments prepared from ergotized cereal kernels are used to stop bleeding and cause abortion. Ergot is a powerful poison.

Harvesting in the U.S.

Note: Usual percentage of crops harvested in months indicated. Source: USDA.

	Per cent			
Wheat—	June	July	Aug.	Sept.
New York	..	78	20	2
Pennsylvania	5	88	7	..
Virginia	45	51	4	..
Ohio	15	84	1	..
Indiana	34	63	3	..
Illinois	35	58	6	..
Michigan	..	75	23	2
Minnesota	..	21	71	8
Missouri	61	38	1	..
North Dakota	..	3	75	22
South Dakota	..	31	61	8
Nebraska	3	92	5	..
Kansas	49	51	..	..
Oklahoma	75	25	..	..
Texas	78	22	..	..
Montana	..	17	65	18
Washington	..	20	68	12
United States	11.3	47.1	28.4	8.5
Oats—				
New York	..	26	55	19
Pennsylvania	..	31	64	5
Ohio	..	59	41	..
Indiana	1	73	26	..
Illinois	4	78	18	..
Wisconsin	..	31	67	2
Minnesota	..	35	62	3
Iowa	1	80	19	..
North Dakota	..	8	70	22
South Dakota	..	42	55	3
Nebraska	1	73	26	..
Kansas	27	73	..	..
Oklahoma	71	29	..	..
Texas	84	15	1	..
Montana	..	3	61	36
United States	1.9	32.9	34.3	5.8
Barley—				
Wisconsin	..	67	33	..
Minnesota	..	59	39	2
North Dakota	..	35	58	7
South Dakota	..	70	28	2
California	38	41	18	3
United States	8.2	51.9	33.9	4.9
Rye—				
New York	1	76	22	1
Pennsylvania	5	87	8	..
Indiana	33	66	1	..
Michigan	1	76	23	..
Wisconsin	2	78	20	..
Minnesota	3	86	11	..
North Dakota	..	65	35	..
South Dakota	1	82	17	..
Nebraska	4	88	8	..
United States	11.3	71.8	14.8	8.7
Buckwheat—				
New York	..	..	4	43
Pennsylvania	..	..	1	58
Michigan	..	..	2	64
United States	..	8.8	4.7	64.9
Flaxseed—				
Minnesota	..	1	50	41
North Dakota	..	..	28	62
South Dakota	..	4	37	51
Montana	..	..	30	59
United States	0.1	1.2	31.5	56.6
Rice—				
Louisiana	..	1	22	61
Texas	..	2	23	60
Arkansas	..	..	1	28
California	..	..	..	5
United States	..	0.8	15.2	33.9

Texas harvests 7% of its wheat crop in May, and Oklahoma 1%; 1% of the country's wheat crop is harvested in May, and 3% in October. One per cent of the country's oats crop (11% of the Texas crop and 1% of Oklahoma's) is harvested in May, and 2% in October. Of the barley crop, 1.2% (1% of California's crop) is harvested in May, and 2% in October. Of the rye crop, 1% is harvested in May, and 3% (1% of New York's crop) in October. Of the buckwheat crop, 35.1% is harvested in October and 3% in November. Of the flax crop, 9.9% is harvested in October. Of the rice crop, 32.8% is harvested in October, 14.4% in November, and 2.4% in December.

U.S. Corn Production, Yield & Acreage by States

Note: By calendar years, 000's omitted. Source: USDA

	Acreage harvested			Yield per acre, bu.			Production, bu.		
State—	Average 1938-47	1948	1949	Average 1938-47	1948	1949	Average 1938-47	1948	1949
Maine	11	10	11	38.7	34.0	42.0	379	340	462
New Hampshire	13	11	11	42.6	37.0	41.0	561	407	423
Vermont	51	52	57	39.4	44.0	45.0	2,183	2,288	2,565
Massachusetts	41	35	37	42.1	41.0	41.0	1,702	1,435	1,517
Rhode Island	8	7	7	34.8	37.0	38.0	275	259	266
Connecticut	59	45	46	37.7	40.0	40.0	2,233	1,800	1,840
New York	473	578	706	35.6	47.0	42.0	16,859	27,128	29,652
New Jersey	189	183	181	38.4	50.0	46.0	7,412	9,150	8,326
Pennsylvania	1,336	1,404	1,379	40.6	44.5	46.5	54,239	62,379	64,077
Ohio	3,423	3,491	3,617	46.8	64.1	55.0	160,368	223,924	198,935
Indiana	4,230	4,751	4,751	46.3	59.8	51.9	196,245	283,690	247,002
Illinois	8,159	8,262	8,263	48.3	61.0	58.0	394,412	504,373	518,117
Michigan	1,643	1,723	1,780	34.9	38.5	38.0	55,253	67,118	65,820
Wisconsin	2,447	2,345	2,380	41.7	44.5	50.0	101,106	103,252	119,000
Minnesota	4,617	5,162	5,049	43.9	52.5	44.9	202,600	272,955	248,533
Iowa	10,149	11,191	11,305	49.1	60.5	49.0	507,280	677,056	553,947
Missouri	4,158	4,420	4,243	30.3	45.5	41.0	126,024	201,110	173,963
North Dakota	1,137	1,150	1,200	21.5	26.0	19.5	24,157	28,435	23,363
South Dakota	3,378	3,652	3,914	22.9	36.0	21.0	78,929	131,472	82,024
Nebraska	7,561	7,013	7,361	22.6	36.0	32.0	160,207	252,468	235,336
Kansas	2,470	2,527	2,524	21.0	33.1	29.0	51,159	83,394	73,196
Delaware	139	128	136	28.1	31.0	35.0	3,979	3,968	4,760
Maryland	472	492	481	34.7	39.0	40.0	16,382	19,032	18,524
Virginia	1,270	1,175	1,148	29.9	43.0	47.0	38,426	50,525	53,956
West Virginia	384	297	287	32.8	44.0	44.0	11,772	13,068	12,748
North Carolina	2,320	2,226	2,150	23.0	31.0	33.0	53,324	69,006	72,245
South Carolina	1,487	1,456	1,484	16.0	19.0	21.0	24,235	28,386	31,164
Georgia	3,735	3,172	3,300	12.3	16.5	14.0	45,050	48,182	46,200
Florida	717	681	691	14.9	16.0	13.0	7,415	6,910	8,983
Kentucky	2,462	2,444	2,367	29.1	41.0	37.0	74,456	100,044	84,741
Tennessee	2,175	2,224	2,120	25.8	33.0	31.0	62,187	74,112	65,800
Alabama	3,161	2,756	2,758	14.3	19.0	17.0	45,098	52,364	47,456
Mississippi	2,721	2,231	2,075	16.1	24.0	23.0	44,000	53,544	47,725
Arkansas	1,814	1,280	1,161	17.7	26.5	24.0	31,979	33,660	28,564
Louisiana	1,270	922	859	16.9	18.5	23.0	20,296	17,057	19,888
Oklahoma	1,652	1,288	1,238	17.1	25.0	23.0	28,302	32,126	28,293
Texas	4,343	2,708	2,537	16.3	16.5	22.0	67,885	44,536	55,286
Montana	161	199	143	16.4	19.0	8.5	2,681	3,781	1,572
Idaho	38	30	34	41.4	42.0	37.0	1,464	1,260	1,258
Wyoming	119	98	83	12.2	18.0	17.0	1,451	1,409	1,443
Colorado	843	594	673	15.8	24.0	26.0	13,955	14,271	17,316
New Mexico	177	135	144	14.0	14.0	15.0	2,473	1,890	2,160
Arizona	24	21	31	14.0	12.0	12.0	334	408	420
Utah	24	23	25	28.8	27.0	36.0	734	621	900
Nevada	3	3	3	21.4	27.0	30.0	67	81	90
Washington	25	18	17	41.3	45.0	52.0	1,071	810	884
Oregon	47	36	36	34.0	35.0	38.5	1,561	1,260	1,491
California	73	60	72	31.2	33.0	33.0	2,242	1,980	2,376
United States	84,837	85,557	86,735	31.4	43.0	38.9	2,747,419	3,651,793	3,377,790

This table covers corn for all purposes, including hogged and siloed corn, and that cut and fed without removing the ears, as well as that husked and snapped for grain. The yield for grain, with an allowance for varying yields of corn for other purposes, is applied to the total acreage to obtain an equivalent production expressed in terms of grain.

U.S. Acreage Sown to Winter Wheat by States

Note: Acreage sown in fall, 000's omitted. Source: USDA

	Acreage seeded*				Production			
State—	Crops of 1938-47	Crop of 1948	1949	1950	Crops of 1938-47	Crop of 1948	1949	†1950
New York	365	407	422	404	7,278	12,150	11,074	10,100
New Jersey	77	111	107	109	1,313	1,763	1,992	1,962
Pennsylvania	898	983	930	899	16,572	18,324	21,114	18,778
Ohio	1,880	2,177	2,177	2,082	42,234	57,518	55,002	46,118
Indiana	1,449	1,511	1,715	1,198	25,168	36,163	38,632	31,899
Illinois	1,390	1,726	2,048	1,587	27,867	40,624	49,172	38,343
Michigan	867	1,018	1,093	1,159	18,588	26,270	26,918	31,429
Wisconsin	50	33	38	29	778	696	858	551
Minnesota	147	108	55	76	2,526	1,659	1,455	1,282
Iowa	363	378	436	275	4,380	7,138	7,466	5,225
Missouri	1,611	1,918	2,125	1,790	23,692	29,770	35,028	25,500
South Dakota	209	199	291	263	2,819	3,417	2,600	3,260
Nebraska	3,277	3,419	4,588	3,898	57,406	61,858	63,318	78,950
Kansas	13,436	14,684	16,244	13,867	186,964	231,768	184,268	267,185
Delaware	88	73	69	61	1,388	984	1,202	1,098
Maryland	380	415	385	351	7,118	8,073	8,878	8,318
Virginia	488	433	491	445	7,883	9,194	8,732	7,582
West Virginia	119	98	93	92	1,874	1,656	1,507	1,384
North Carolina	494	427	417	430	6,690	6,642	5,741	6,526
South Carolina	200	249	263	260	3,028	3,333	3,850	3,490
Georgia	180	219	200	184	2,293	2,881	3,248	1,968
Kentucky	358	478	429	374	5,555	5,161	5,584	6,148
Tennessee	384	345	327	294	3,727	5,346	4,350	4,116
Alabama	11	17	14	12	171	238	189	168
Mississippi	110	18	16	11	1,119	308	183	224
Arkansas	48	47	37	27	380	578	680	285
Oklahoma	5,469	5,557	5,552	5,217	67,478	84,942	64,776	79,821
Texas	5,131	6,707	7,687	6,354	53,944	59,184	160,448	88,282
Montana	1,332	2,474	2,878	1,299	26,274	37,176	23,768	37,144
Idaho	719	855	1,048	873	15,706	18,446	22,548	20,804
Wyoming	171	246	311	264	2,779	5,166	4,384	6,148
Colorado	1,190	2,000	2,462	2,482	19,846	41,412	40,474	32,988
New Mexico	325	387	431	398	2,485	5,231	4,072	4,896
Arizona	31	39	39	38	525	544	798	456
Utah	327	345	386	311	4,206	6,966	6,612	6,440
Nevada	5	7	8	6	129	182	168	174
Washington	1,888	2,077	2,251	2,219	41,901	59,090	38,172	47,481
Oregon	718	810	911	778	16,611	25,062	27,002	14,708
California	778	716	748	797	11,478	16,135	11,470	12,431
United States	47,712	59,471	60,372	55,403	730,333	1,067,583	901,836	851,815

*Total acreage seeded for all purposes. †Indicated Dec. 1, 1949. Short-time average.

Seeding in the Northwest

The Minneapolis Chamber of Commerce, by investigation, has ascertained that in—

NORTH DAKOTA

Seeding commences April 1 and becomes general in southern part April 15-20. Seeding becomes general throughout the state from April 20 to 25, and is completed about May 15.

MINNESOTA

In central and southern parts, seeding commences latter part of March, and becomes general about April 15. In the southern part of the state approximately 50% of the seeding is completed April 15-20, and in the central part about 25% at the same time. In the southern half, seeding is completed about May 1, and in other parts May 10.

SOUTH DAKOTA

Seeding commences the latter part of March, and becomes general about April 1. In the southeastern part, it is completed April 15-20, and in other parts about May 1.

World Rye Production, Yield and Acreage

Note: 000's omitted **Source: USDA**

Continent and country	Acreage† Average 1935-39	Acreage† 1947	Acreage† 1948	Acreage† 1949¶	Yield per acre‡ Av. 1935-39 (bu.)	Production Av. 1935-39	Production 1947	Production 1948	Production 1949¶
	1,000 acres				bu.	1,000 bu.			
N. America—									
Canada	811	1,130	1,198	1,191	14.5	11,327	13,217	[illegible]	15,853
U. S.	3,071	2,019	2,097	1,528	12.2	37,847	25,971	26,388	18,697
Total	3,881	3,149	3,295	2,719		48,789	38,181	41,728	29,744
Europe—									
Austria	473	291	448	472	19.9	12,606	11,480	[illegible]	[illegible]
Belgium	381	239	232	272	30.5	11,348	8,708	6,780	[illegible]
Bulgaria	413	748	....	....	15.9	8,972	....	....	....
Czechoslovakia	2,148	2,081	1,782	1,785	23.6	[illegible]	[illegible]	[illegible]	[illegible]
Denmark	497	278	412	474	32.1	[illegible]	7,848	[illegible]	[illegible]
Finland	458	[illegible]	572	....	16.7	7,848	4,488	[illegible]	[illegible]
France	1,163	1,179	1,489	1,119	20.2	[illegible]	[illegible]	[illegible]	[illegible]
Greece	158	118	149	118	11.5	1,280	1,799	2,047	1,801
Hungary	1,523	1,518	....	....	18.3	27,812	17,858	....	....
Italy	253	258	266	260	21.1	5,308	4,338	[illegible]	[illegible]
Luxembourg	23	17	18	18	22.3	489	257	458	[illegible]
Netherlands	572	449	454	467	28.7	20,623	12,598	[illegible]	[illegible]
Norway	8	3	3	3	32.8	197	79	117	88
Portugal	....	781	751	758	....	....	3,858	[illegible]	[illegible]
Rumania	538	....	....	....	13.4	7,190	....	....	....
Spain	1,51?	1,550	1,559	1,600	11.6	17,600	17,908	[illegible]	[illegible]
Sweden	218	283	285	335	26.7	13,814	6,414	[illegible]	[illegible]
Switzerland	34	31	28	29	35.5	1,189	979	1,047	680
U. K.	73	55	81	63	28.3	3,172	685	1,860	2,139
Yugoslavia	590	....	....	....	12.8	7,875	....	....	....
Est. total§	21,???	27,???	28,???	28,???	....	435,000	294,000	348,000	344,000
U.S.S.R. (Europe & Asia)	....	72,000	73,000	73,500	....	....	828,000	835,000	835,000
Asia—									
Turkey	1,099	1,012	1,079	898	13.9	15,117	15,000	12,500	10,800
Africa—									
Un. of S. Africa	142	155	....	....	5.9	830	1,000	879	....
S. America—									
Argentina	961	1,731	1,600	....	10.7	10,961	19,210	9,143	15,000
Est. world total§	94,430	108,300	109,200	110,400	....	1,580,000	1,578,000	1,661,000	1,611,000

Prepared or estimated on the basis of official statistics of foreign governments, reports of U.S. Foreign Service officers, results of office research, or other information. Prewar estimates for countries having changed boundaries have been adjusted to conform to present boundaries. Years shown refer to years of harvest in the Northern Hemisphere. Harvests of Northern Hemisphere countries are combined with those of the Southern Hemisphere which immediately follow; thus, the crop harvested in the Northern Hemisphere in 1949 is combined with preliminary forecasts for the Southern Hemisphere, harvests, which began late in 1949 and end early in 1950. †Figures refer to harvested areas as far as possible. ‡Yield per acre calculated from acreage and production data shown, except for incomplete periods. ¶Revised estimates for Northern Hemisphere countries; for Southern Hemisphere, preliminary forecasts based largely on acreage and weather conditions to date. §Estimated totals, which in the case of production are rounded to millions, include allowances for any missing data for countries shown and for other producing countries not shown.

U.S. Barley Production and Acreage by States

Note: By calendar years, 000's omitted **Source: USDA**

State	Acreage harvested Average 1938-47	Acreage harvested 1948	Acreage harvested 1949	Yield per acre, bu. Average 1938-47	Yield per acre, bu. 1948	Yield per acre, bu. 1949	Production, bu. Average 1938-47	Production, bu. 1948	Production, bu. 1949
Maine	4	4	5	28.5	32.0	31.0	111	128	155
Vermont	4	2	1	24.9	29.0	23.0	104	58	23
New York	111	80	75	28.0	33.0	24.0	3,098	2,737	1,800
New Jersey	7	13	13	38.1	34.0	40.0	257	419	520
Pennsylvania	159	151	155	29.4	34.0	35.0	3,145	5,133	5,167
Ohio	30	16	14	25.9	30.0	29.0	774	540	464
Indiana	48	18	16	24.5	27.0	27.5	1,171	486	258
Illinois	89	33	28	27.0	30.0	32.0	2,431	1,085	904
Michigan	192	140	126	29.7	32.0	28.5	5,918	4,480	3,582
Wisconsin	453	280	193	32.8	28.0	34.0	15,277	7,784	6,562
Minnesota	1,334	1,218	1,081	26.2	28.0	24.0	35,477	34,132	25,944
Iowa	184	33	27	25.3	32.0	35.0	4,364	1,056	945
Missouri	115	79	92	20.2	24.0	23.0	2,447	1,796	2,116
North Dakota	2,107	1,840	1,603	21.1	21.0	16.0	43,423	38,640	25,648
South Dakota	1,639	1,513	1,166	20.0	22.0	13.5	33,145	34,814	14,904
Nebraska	1,118	472	307	19.1	18.0	19.0	21,398	8,304	5,833
Kansas	753	342	173	16.9	19.0	17.0	12,449	6,498	2,757
Delaware	8	11	11	29.1	29.0	30.0	219	334	328
Maryland	68	75	63	28.4	31.0	30.0	2,018	2,325	1,882
Virginia	73	88	90	27.0	31.0	30.0	1,975	2,558	2,700
West Virginia	10	10	14	26.0	33.0	30.0	248	330	420
North Carolina	31	35	36	25.7	23.0	25.0	782	799	900
South Carolina	16	22	27	21.0	31.0	22.0	434	672	594
Georgia	*7	5	6	*19.6	20.0	16.0	*116	100	96
Kentucky	71	49	63	23.3	27.0	26.0	1,648	1,348	1,638
Tennessee	83	74	69	19.6	22.0	19.5	1,624	1,650	1,276
Alabama	*3	2	3	*18.9	19.0	16.0	*57	38	48
Mississippi	*3	2	2	*24.9	25.0	25.0	*88	50	50
Arkansas	10	5	4	17.3	20.0	18.0	166	102	72
Oklahoma	320	118	92	16.9	15.5	17.5	5,776	1,795	1,610
Texas	277	122	146	16.9	15.5	19.0	4,120	1,891	2,774
Montana	445	374	324	25.6	26.5	22.0	11,822	11,909	12,953
Idaho	294	345	297	35.6	38.0	34.0	10,448	13,776	10,098
Wyoming	115	172	177	29.1	27.5	30.0	3,233	4,730	5,310
Colorado	512	587	616	23.0	25.0	28.5	11,848	14,675	23,534
New Mexico	20	27	33	28.2	21.0	22.0	587	567	726
Arizona	53	180	138	38.0	40.0	40.0	2,004	7,338	5,520
Utah	113	135	129	44.1	44.0	47.0	4,980	5,940	6,063
Nevada	19	28	27	36.8	37.0	36.0	690	1,036	972
Washington	101	125	99	30.6	34.5	28.0	2,937	4,312	2,871
Oregon	233	371	305	31.9	34.0	32.0	7,472	12,609	9,853
California	1,357	1,835	1,822	27.6	38.5	26.0	37,332	69,471	47,316
United States	12,735	11,987	9,879	24.8	26.4	24.1	304,742	315,550	238,104

*Short-time average.

Canadian Reports

Following are dates of field crop reports to be released by the Agriculture Division of the Dominion Bureau of Statistics during 1950. All reports issued at 3 p.m. e.s.t. or e.d.s.t. when in force, at Ottawa.

Feb. 24—Revised estimate of production and value of 1949 field crops.
March 1—Farm land values.
April 29—Stocks of grain at March 31.
May 9—Telegraphic crop report—Canada.
May 11—Intentions to plant field crops. Winter-killing and spring condition of fall wheat, fall rye and hay and clover meadows. Progress of spring seeding.
May 16—Telegraphic crop report—prairie provinces.
May 30—Telegraphic crop report—Canada.
June 7—Telegraphic crop report—prairie provinces.
June 13—Telegraphic crop report—Canada.
June 20—Telegraphic crop report—prairie provinces.
July 5—Telegraphic crop report—Canada.
July 11—Telegraphic crop report—prairie provinces.
July 13—Condition of field crops at June 30.
July 18—Telegraphic crop report—Canada.
July 20—Preliminary estimate of area sown to field crops.
July 25—Telegraphic crop report—prairie provinces.
Aug. 8—Telegraphic crop report—Canada.
Aug. 14—August estimate of production of principal field crops, including fall wheat, fall rye, alfalfa, hay and clover and potatoes.
Aug. 17—Stocks of grain at July 31.
Aug. 22—Telegraphic crop report—Canada.
Sept. 13—September estimate of production of principal field crops, including late-sown crops, fodder, roots and potatoes.
Sept. 19—Telegraphic crop report—Canada.
Nov. 14—November estimate of production of principal field crops, including late-sown crops, fodder, roots and potatoes. Area and condition of fall-sown crops.
Nov. 21—Acreage and production of all seed crops.
Dec. 13—December estimate of value of field crops.

Wheat Seedings by States

Note: In million acres. Source: USDA

Harvest year	N. Dakota	S. Dakota	Montana	Nebraska	Kansas	Oklahoma	Texas	Washington
1949	10.9	4.1	5.8	4.7	16.2	7.8	7.7	3.2
1948	10.1	3.5	5.2	4.2	14.6	7.3	6.6	2.9
1947	10.1	3.3	5.2	4.5	15.4	7.1	7.6	2.8
1946	10.4	3.5	4.4	4.3	14.0	6.7	6.6	2.6
1945	10.0	3.4	4.1	3.8	14.1	6.3	6.0	2.7
1944	10.2	3.5	4.4	3.7	13.1	6.2	4.4	2.5
1943	9.0	2.2	4.0	4.1	10.7	5.6	3.6	3.5
1942	7.5	2.7	3.4	3.1	10.7	5.0	3.6	1.7
1941	8.4	3.3	3.0	3.3	11.1	5.0	3.6	2.0
1940	8.6	3.0	3.4	3.7	14.0	6.0	4.7	2.3
1939	8.2	3.0	3.0	4.0	13.9	4.9	3.9	1.8
1938	10.2	3.9	4.0	4.7	16.9	6.3	5.3	2.2
1937	10.2	3.6	4.0	5.0	17.1	6.0	6.2	2.6
1936	10.8	4.2	4.0	4.9	14.3	6.0	6.1	2.8
1935	10.0	3.9	4.1	3.7	13.6	4.7	4.0	3.1
1934	8.3	3.0	3.7	3.6	13.7	4.0	4.0	3.0
1933	11.4	4.0	4.1	3.3	13.0	4.4	4.0	3.0

U.S. Wheat Acreage Harvested

Note: Harvested acreage in principal wheat producing states. 000's omitted. Source: USDA

State	1949	1948	1947	1946	1945	1944
Pa.	812	868	879	865	912	925
Ohio	2,353	2,353	2,179	1,833	2,128	1,935
Ind.	1,737	1,775	1,571	1,381	1,550	1,325
Ill.	1,918	1,719	1,547	1,207	1,228	1,348
Mich.	1,197	1,291	1,192	864	882	987
Minn.	1,281	1,054	1,159	1,391	1,109	1,124
Iowa	158	335	308	183	159	125
Mo.	1,948	1,765	1,571	1,215	1,304	1,384
N. D.	10,404	9,839	10,165	10,182	9,932	9,909
S. D.	4,074	3,918	3,705	3,148	3,301	3,028
Neb.	3,762	4,072	4,327	3,954	3,586	2,778
Kans.	11,779	13,323	14,050	13,147	13,418	11,277
Md.	383	377	376	368	348	376
Va.	472	487	487	433	490	508
Okla.	6,638	6,925	6,757	6,067	6,910	4,773
Texas	7,093	5,829	7,019	5,992	5,339	3,848
Mont.	5,149	4,979	4,427	4,188	3,777	3,844
Idaho	1,457	1,413	1,356	1,268	1,162	1,008
Colo.	2,984	2,874	2,333	1,876	1,488	1,080
Wash.	2,797	2,788	2,719	2,642	2,624	2,571
Ore.	1,009	1,052	949	984	925	915
Calif.	620	811	729	963	143	947

INFORMATION on FEED INDUSTRY

HIGH consumer buying power for meat and dairy and poultry products, plus attractive feeding ratios, were the principal factors in bringing a tonnage increase in formula feeds sold during 1949. Trade sources in best position to estimate the volume of formula feed business during the calendar year believe that the total again reached 30 million tons, which was approximately the wartime peak. This would indicate a gain of about 5 millions from 1948, when adjustments from wartime conditions were occurring.

About 6,000 feed manufacturers participated in producing this total. Of these, about 2,700 manufacturers produced approximately 22 million tons. There are 25 or 30 companies in the U.S. producing 12,000 or more tons of formula feed monthly, and probably another 125 producing from 1,000 to 12,000 tons a month.

★ ★ ★

A severe and generally unexpected break in feed prices in February, 1949, caught most companies with high priced inventories and caused substantial losses. After the first effects of this were absorbed, however, price levels were more stable and feeding ratios were more attractive, and the net result was beneficial to feed sales. But with the February break and subsequent variations, the year was one of violent price swings. Outstanding examples were in fish meal, where prices fluctuated as much as $100 a ton between the low and the high, meat scraps, with a variation of $75@80, and soybean oil meal, where $50@55 a ton measured the difference between the extreme low and the extreme high.

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Although there are many unpredictable yet important factors, such as the uncertain farm price support program, which may upset forecasts, the prospect for feed business in 1950 is generally good. Some feeding ratios will be less profitable than in 1949, but efficient operators still can make money out of good feeding practices. With some exceptions, supplies of feed are good. At the beginning of 1950, it was indicated that total supplies of grains, grain by-products and high protein concentrates, after allowing for carryover and continued substantial exports, will be about 142 million tons, or about 14 million tons over the amount expected to be used for feeds.

It is estimated that 6% more laying hens will be raised in 1950 than in 1949. Broiler and turkey production will be about the same as last year. The 1949 fall pig crop, which will be fed in 1950, was 10% larger than the previous year, and the 1950 spring pig crop will be 6% above that of 1949, it is indicated.

The outlook for consumer buying power in 1950 is good, with total personal income estimated at $200@215 billion, which is about the same as in 1949. The 1949 income was also about equal to that of 1948, which was the largest on record and three times as large as during the immediate prewar period of 1935-39. This would indicate a continued large demand for the products of the feed lot.

Rules Governing Feed Trade

The following rules are used by the Grain & Feed Dealers National Assn. as the basis of settlement for disputes between members. They are generally recognized throughout the industry in arbitrating any disagreements.

Rule 1. Trade: It shall be the duty of both buyer and seller to include in their original articles of trade, however conducted, the following specifications:

Date of contract;
Number of sacks, tons or cars;
Kind and grade of feed;
Price;
Rate basing point;
Time of shipment;
Terms of payment, sight draft unless otherwise specified.

Rule 2. Confirmation: (a) It shall be the duty of both buyer and seller, not later than the close of business day following date of trade, to mail, each to the other, a confirmation in writing (the buyer a confirmation of purchase and the seller a confirmation of sale), setting forth the specifications as agreed upon in the original articles of trade. Upon receipt of said confirmation, the parties thereto shall carefully check all specifications named therein and, upon finding any differences, shall immediately notify the other party to the contract, by wire or telephone, and confirm in writing, except in the case of manifest errors and differences of minor character in which event notice by return mail will suffice.

(b) When a trade is made through a broker, it shall be the duty of the broker, not later than the close of business day following date of trade, to send a written confirmation to each of the principals (to the buyer a confirmation of sale and to the seller a confirmation of purchase) setting forth the specifications of the trade as made by him. Upon receipt of said confirmation, the parties thereto shall carefully check all specifications named therein and, upon finding any differences, shall immediately notify the other party to the contract by wire or telephone, and confirm in writing. In default of such notice, the contract shall be filled in accordance with the terms of the confirmation issued by the broker.

Rule 3. Carload: A carload shall be not less than the minimum weight prescribed by the Interstate Commerce Commission at the time of sale.

In the event the minimum weight prescribed by the Interstate Commerce Commission is increased between the date of sale and date of shipment, the seller shall deliver the minimum weight prescribed by law at that time, any overage from the original contract to be invoiced at market price on date of shipment.

When feed is sold by the car or carloads and no tonnage is specified in the contract, any disputes or adjustments in case of cancellation or nondelivery shall be based on 35-ton cars.

Rule 4. Bills of Lading: Bills of lading attached either to invoices or to drafts shall be original and negotiable and in conformity with the specifications of the contract on which the shipment is to apply, and shall be signed in accordance with the rules of carriers. Any loss resulting from irregular or incorrect bills of lading shall be paid by the seller.

Rule 5. Demurrage and/or Additional Charges: The seller shall be liable for any demurrage and/or additional charges accruing on feed billed to "shipper's order," when such charges can be shown to have accrued by reason of the inability of the buyer, through act of the seller or his agent, to get possession of the bill of lading whenever said bill of lading is necessary to furnish disposition.

Rule 6. Shortage, Damage and/or Overcharge: (a) All claims for shortage and/or damage shall be made by the receiver within fifteen (15) days after arrival, and must be accompanied by paid expense bill with railroad agent's notations as to damage, likewise condition of equipment and seals.

Rule 7. Origin of Feed: (a) A sale of feedstuffs shall not of necessity mean that the feedstuffs will originate at the home address of the seller, but must be of domestic origin unless otherwise specified at time of sale.

(b) A sale of feedstuffs contemplates shipment from mills on or after the date of sale, unless otherwise specified.

Rule 8. Privileges: In all delivered sales to any terminal markets the point specified shall be considered as a rate basis only and not necessarily final destination of goods, and shipment shall be made to any point and via any line open for business designated by the buyer which is reached by lake, or lake-and-rail lines during the season of navigation, or by all-rail trunk lines at other times, provided shipment is made within contract time, and provided further, that such routing is in accord with transit arrangements of shipper.

Rule 9. Time of Shipment: (a) Immediate or rush shipment shall mean shipment within three (3) calendar days from the date of receipt of shipping instructions, including day instructions are received by seller.

(b) Quick shipment shall mean shipment within seven (7) calendar days from date or receipt of shipping instructions, including day instructions are received by seller.

(c) Prompt shipment shall mean shipment within fourteen (14) calendar days from the date of receipt of shipping instructions, including day instructions are received by seller.

(d) **Unspecified Shipment:** Where shipment is not specified prompt shipment is understood.

(e) Loaded, spot, instant or on track shall mean that the goods are actually loaded and ready for billing, and the lading must be dated on the day of sale.

(f) In transit shall mean that the lading must be dated at least one day prior to date of sale.

(g) **Deferred Shipment:** In the purchase and sale of feed for deferred shipment following specifications shall govern:

Where a specific number of days is not specified in contract, but the time is referred to as first half or second half of a given month, it shall be understood that up to midnight of the 15th shall be considered the first half (this including February), the remainder of the month to be considered as second half.

(h) **Season Shipment:** Season shipments shall mean shipment any time, at the seller's option, between the date of sale and June 1st of the current year, inclusive.

(i) **Weekly Shipments:** First week in ..... second week in ..... etc., shall be construed as meaning:

First to seventh day inclusive.
Eighth to fourteenth day inclusive.

Fifteenth to twenty-first day inclusive.

Twenty-second to last day of month inclusive.

The fourth week in any month may consist of from seven to ten days.

First calendar week in.....; second calendar week in.....; etc., shall be construed as meaning the respective weeks as shown on the calendar. A calendar week may consist of from one to seven days.

(j) **Scattered shipment during any contract period:** The term "scattered shipment" is meaningless unless specifically qualified at the time of sale.

Rule 10. Evidence of Shipping Date: (a) On all shipments the date of issuance of bill of lading, signed by the agent of the railroad issuing same, shall be conclusive evidence of date of shipment, unless conclusive evidence to the contrary can be shown.

(b) The date of original bill of lading, from point of origin, as shown on an exchange bill of lading, shall be accepted as the original date of shipment.

(c) Tray tickets or shipping receipts when dated and signed by railroads in terminal markets shall also be accepted as evidence of shipment.

Rule 11. Shipping Directions: (a) Unless otherwise agreed in the contract all sales are understood to be for shipment at Seller's option at any time during time of shipment specified or provided for in contract.

(b) Shipping directions on sales for spot, immediate or quick shipment, or for shipment within less than fourteen (14) days, must be furnished by Buyer at the time contract is made; and if so furnished, Seller shall make shipment within time of shipment specified or provided for in contract.

(c) Shipping directions on sales for prompt shipment must be furnished by Buyer as follows: If not demanded by Seller, shipping directions must be furnished within fourteen (14) days from making of contract, and if demanded by Seller at any time at or after making of contract shipping directions must be furnished within three (3) days after such demand; and if so furnished, Seller shall make shipment within fourteen (14) days after receipt of shipping directions.

(d) Shipping directions on sales for shipment within fourteen (14) days or more but not more than thirty-one (31) days from making of contract must be furnished by Buyer as follows: If not demanded by Seller, shipping directions must be furnished within contract time; and if demanded by Seller at any time at or after making of contract, shipping directions must be furnished within three (3) days after such demand; and if shipping directions, whether demanded or not, are furnished by Buyer within three (3) days after making of contract, Seller shall make shipment within contract time.

(e) Shipping direction on sales for shipment extending more than thirty-one (31) days from making of contract are not due from Buyer until commencement of contract time of shipment but must be furnished by Buyer as follows: If not demanded by Seller, shipping directions must be furnished by Buyer within contract time of shipment; if demanded by Seller at any time at or after commencement of time of shipment specified in contract, shipping directions must be furnished within three (3) days after such demand; and if so furnished by the Buyer, provided the same are received by the Seller at least fourteen (14) days before the last day of contract time of shipment, Seller shall make shipment within contract time.

(f) If, in any of the cases above mentioned and while the contract is still in force, shipping directions are furnished after the first three (3) days of time of shipment specified or provided for in the contract shall have expired, the time of shipment shall be extended so that Seller shall have the same amount of time after the receipt of shipping directions, within which to make shipment, as the length of time of shipment specified or provided for in the contract; and if so furnished, the Seller shall make shipment within the time of shipment as so extended under foregoing provisions.

Rule 12. Refusal of Shipment: Failure to make any shipment in keeping with the terms and conditions of a contract shall be grounds for the refusal only of such shipment or shipments, and not for the cancellation of the entire contract or any other contract between Buyer and Seller.

Rule 13. Condition Guaranteed Upon Arrival: Shipment on contracts shall be guaranteed by the Seller to arrive at final destination, cool, sound and sweet, with the following exception: (a) When shipments are ordered to a reconsignment point, Seller shall not be responsible for condition at final destination unless shipments are ordered forward from such reconsignment points within 48 hours after arrival, and in no case shall Seller be responsible for condition at final destination if a second reconsignment or diversion is made.

(b) It shall be the duty of the Buyer to ascertain and report the condition of the shipment not later than 12:00 o'clock noon of the next business day after arrival at final destination, otherwise the Seller's liability ceases at the expiration of such time.

(c) "A Buyer receiving a shipment that is out of condition on arrival and handled as outlined in preceding paragraphs, shall upon Seller's request, unload, recondition, and salvage to best advantage of the Seller whenever practical to do so.

"If Buyer is unable to handle as requested, seller shall dispose of the shipment and be obligated to make replacement, such replacement to be made by a new shipment within seven (7) calendar days from the date of refusal by the Buyer."

Rule 14. Breach of Contract and Procedure: If shipping directions are demanded by Seller and are not furnished by Buyer within three (3) days thereafter (in case last day of time of shipment is thirty-one (31) days or less from date of contract or within three (3) days after commencement of period of shipment in case last day of time of shipment is more than thirty-one (31) days from date of contract), Seller may, at any subsequent time before receipt of shipping directions, elect to treat the contract as broken and to hold the Buyer for breach of contract. If the Seller so elects, Seller shall give notice to Buyer of such election by sending a telegram or mailing a letter to Buyer before the receipt of specifications.

The contract shall be deemed broken by the Buyer at the expiration of the time of shipment mentioned or provided for in the contract, in the following case, viz: If shipping directions are demanded by Seller during contract time and Buyer has failed to furnish the same in accordance with the

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U.S. Formula Feed Industry Statistics—1947, 1939

Note: These figures cover establishments engaged primarily in manufacturing prepared feeds for animals and fowls. Prepared feeds include those made and milled from grains; animal, marine and vegetable proteins; alfalfa meals, bone meal, calcium carbonate, manganese, and other mineral supplements; fish liver oils, distillers solubles, and other vitamin supplements. Some of the establishments in this industry mill the grain they use, and others purchase all their materials. Mills primarily engaged in cracking grains, now included in this industry, were included in the Flour and Meal Industry in previous years.

Source: U.S. Bureau of the Census

(Money figures and man-hours in millions)

Item—	1947	1939
Number of establishments	2,849	1,381
All employees:		
Number (average for the year)	55,247	34,177
Salaries and wages (total)	$143.3	$1.8
Production and related workers:		
Number (average for the year)	48,186	15,491
Man-hours (total)	91.6	n.a.
Wages (total)	$[illegible]	$14.1
Value added by manufacture*	$704	$99
Cost of materials, fuel, electricity and contract work	$1,734	$302
Value of shipments†	$2,110	$402
Expenditures for new plant and equipment	$14.4	n.a.

n.a. Not available.

*For 1947, value of shipments less cost of materials, fuel, electricity, and contract work. For 1939, value of production less cost of materials, fuel, electricity, and contract work.

†Value of production for 1939.

‡Prepared feeds amounted to 97% of the total value of shipments of the industry in 1947.

foregoing provisions, and the Seller has not during contract time given notice to Buyer of the Seller's election to treat the contract as broken, if the Seller elects to hold Buyer for breach of contract, the Seller shall give notice to the Buyer of such election by sending a telegram or mailing a letter to the Buyer prior to noon of the day following the expiration of the time of shipment specified or provided for in the contract.

If a Buyer violates any of the other terms of the contract amounting to a breach of contract, the Seller shall, if he elects to treat the contract as broken by reason thereof, give notice of such election to Buyer by sending a telegram or mailing a letter to the Buyer prior to noon of the day following the day on which the Seller receives notice of such violation by the Buyer.

In the event Buyer fails to furnish shipping directions as required under these rates, or violates any of the other terms of the contract, amounting to breach of contract, and the Seller gives due notice, as above provided, of his election to hold the Buyer for breach of contract, the Seller shall have the following rights:

(a) To resell goods in the open market for Buyer's account; Buyer to pay Seller the loss incurred; or,

(b) To retain goods; Buyer to pay Seller difference between contract price and market price in the event of market price being lower, and also in addition thereto such actual expenses as shall have been incurred.

(c) To cancel the contract on any unshipped portion thereof.

(d) It shall be the duty of the Seller, without demand, in event of default of contract, to notify Buyer of that fact by wire or telephone prior to noon of the following date of expiration of contract.

Within twenty-four (24) hours after the Seller gives due notice, as above provided, of his election to hold the Buyer for breach of contract, the Seller must give notice to the Buyer which one of the above rights Seller elects to exercise, such notice to be given by mailing letter or sending telegram to Buyer.

If the Seller fails to ship as required by the contract or violates any of the other terms of the contract, amounting to breach of contract, the Buyer shall, if he elects to treat the contract as broken by reason thereof, give notice of such election to the Seller by sending a telegram or mailing a letter to the Seller prior to noon of the day following the day upon which the Buyer receives notice of such violation by the Seller.

In the event Seller fails to ship as required under these rates or violates any of the other terms of the contract, amounting to breach of contract, and the Buyer gives due notice, as above provided, of his election to hold the Seller for breach of contract, the Buyer shall have the following rights:

(a) To cancel that part of the contract upon which there has been default; or,

(b) To buy in the open market a like quantity and quality of Foodstuffs for Seller's account, Seller to pay Buyer the loss incurred; or,

(c) Seller to pay differences between the contract price and market price, if the market price be higher than the contract price and in addition, such actual expense as shall have been incurred.

Within twenty-four (24) hours after the Buyer gives due notice, as above provided, of his election to hold the Seller for breach of contract, Buyer must give

Formula Feed Industry, General Statistics, by Divisions and States—1947

Note: Dollars and man-hours, 000's omitted. These figures cover establishments engaged primarily in manufacturing formula feeds for animals and fowls.

Source: U.S. Bureau of the Census

(Money figures and man-hours in thousands)

All employees | Production & related workers

Industry, division and state	Number of establishments	Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total	Value added by manufacture	Cost of materials, fuel, electricity and contract work	Value of products shipped	Expenditures for new plant and equipment
Prepared animal feeds, total*	**7,689**	**55,347**	**$143,301**	**40,506**	**92,751**	**$91,579**	**$394,336**	**$1,736,057**	**$2,130,393**	**$14,791**
New England	86	1,870	4,876	1,435	3,148	3,063	11,508	84,806	104,100	1,432
Middle Atlantic	574	6,784	24,834	5,194	14,194	16,810	72,327	324,613	414,810	5,439
New York	147	3,006	16,329	3,624	8,331	11,146	51,022	280,469	331,441	3,874
New Jersey	61	892	2,156	656	1,585	1,595	8,904	24,384	33,281	377
Pennsylvania	176	2,917	5,854	1,784	4,278	3,984	14,398	79,819	81,708	988
East North Central	851	11,824	32,347	7,218	16,183	17,814	81,219	337,748	439,897	7,014
Ohio	137	1,707	4,457	2,268	5,247	6,041	23,813	132,018	164,899	1,339
Indiana	120	1,663	4,841	1,713	3,863	5,253	31,508	83,416	78,284	1,142
Illinois	127	2,487	10,181	2,149	5,178	6,882	26,202	111,946	156,342	3,283
West North Central	894	10,181	24,016	7,446	17,886	17,214	78,118	204,248	322,447	4,001
Minnesota	143	1,747	4,519	1,317	2,948	3,117	16,212	46,822	73,035	1,422
Iowa	131	2,031	4,193	1,383	3,153	3,139	17,441	43,812	66,213	1,269
Missouri	514	3,703	8,651	3,018	6,799	6,142	21,158	69,321	111,608	2,002
South Atlantic	224	5,782	12,162	4,417	10,138	6,210	33,179	193,824	190,499	3,042
Virginia	18	1,006	2,356	772	1,806	1,411	4,417	21,650	27,493	721
North Carolina	57	1,106	3,576	1,118	2,445	2,002	8,227	37,738	45,896	498
South Carolina	13	314	609	208	415	159	1,882	3,009	16,183	79
Georgia	33	916	1,667	778	1,878	1,153	4,469	22,737	18,223	247
East South Central	110	4,173	9,083	3,522	7,601	6,038	27,244	155,642	222,837	2,641
Kentucky	28	184	5,395	476	1,008	1,013	5,341	16,439	22,760	216
Tennessee	33	2,194	4,319	1,899	3,882	3,347	18,514	95,714	83,248	1,625
Alabama	17	817	3,141	792	1,867	1,802	4,704	21,822	37,716	431
Mississippi	12	948	1,005	445	1,024	866	3,768	16,327	26,793	817
West South Central	207	6,175	15,181	4,995	8,418	5,148	28,824	121,895	154,459	3,297
Arkansas	59	1,115	2,164	1,021	1,921	732	5,124	18,182	23,426	168
Texas	114	5,026	7,140	3,435	5,759	4,757	18,941	79,713	98,877	1,127
Mountain	141	1,784	4,164	1,484	3,474	3,211	12,211	93,943	46,152	3,547
Idaho	18	195	441	159	318	289	1,014	4,215	6,143	191
New Mexico	11	157	324	102	228	141	468	741	1,849	16
Pacific	504	8,411	14,941	4,741	10,271	13,787	47,241	190,195	187,188	4,841
California	285	4,828	14,124	3,312	7,416	8,719	33,716	145,834	138,848	3,747

*For each producing state not shown separately in the table there are shown below the number of establishments and, in parentheses, the number of employees for eight represented by three or more companies, which possible.

Prepared animal feeds: New England, Maine 4 (41); New Hampshire 6 (131); Vermont 17 (93); Massachusetts 27 (471); Connecticut 11 (218). **East North Central**, Michigan 19 (275); Wisconsin 37 (824). **West North Central**, North Dakota 10 (131); South Dakota 10 (131); Nebraska 11 (1,041); Kansas 137 (3,831). **South Atlantic**, Delaware 11 (124); Maryland 33 (447); West Virginia 10 (141); Florida 24 (781). **West South Central**, Louisiana 14 (197); Oklahoma 34 (1,811). **Mountain**, Montana 8 (91); Wyoming 3; Colorado 36 (780); Arizona 15 (181); Utah 15 (246); Nevada 4. **Pacific**, Washington 50 (749); Oregon 43 (1,793).

notice to the Seller which one of the above rights Buyer elects to exercise, such notice to be given by mailing letter or sending telegram to Seller.

In event the Buyer's notice is not received by the Seller at any time before shipment, the contract shall be extended so as to include the shipment and delivery when made.

A change in specifications previously filed with the Seller does not extend any contract except upon mutual agreement at the time such change is requested.

Rule 15. Brokers: (a) A broker is one who is engaged for others, on a commission basis, in negotiating contracts relative to property, with the custody of which, actual or constructive, he has no concern.

A person is not a broker:

First. Who has possession and absolute control of merchandise shipped to him to sell and collect the proceeds. (Therefore, a commission merchant, to whom feed is consigned for sale, is not a broker.)

Second. Who receives a salary instead of a commission or brokerage.

Third. Who acts for one principal to the exclusion of all others.

(b) A broker has power to bind his principals only to the extent of his instructions, and the principals are not liable for any acts of the broker in excess of such instructions.

(c) A broker who in good faith or otherwise, exceeds his authority, is liable for principal the name of the other, and who resulting damages.

(d) A broker who negotiates a contract without disclosing his principal's name is responsible as principal until the real principal's name is given and accepted by the other party.

(e) A broker who in good faith negotiates a contract which is in accord with instructions from both his principals, who at the time of the negotiations advises each principal the name of the other, and who completes such negotiations in accordance with the rules and customs governing such transaction, thereby fulfills all his obligations and has no further liability to either of his principals, unless otherwise agreed. The contract so negotiated is valid and binding between the buyer and seller, the same as if it has been negotiated directly between them.

(f) Brokerage shall be credited when contract is accepted by principals to the transaction, unless otherwise specified.

Rule 16. Definitions of Feedstuffs: In the absence of agreements to the contrary, definition of feedstuffs shall be the same as those adopted and promulgated by the Association of American Feed Control Officials.

Rule 17. Packing: (a) It shall be understood that all feedstuffs when sold in sacks shall be packed in new bags, unless otherwise agreed at time of trade.

(b) Shipments shall be in even weight packages and the weight of packages shall be net when packed, and two thousand (2,000) pounds net shall constitute a ton.

Rule 18. Labeling: Each feed container must bear a complete label, either stenciled upon the bag or on tag attached thereto, indicating the net weight, name brand, or trademark, minimum per cent of protein and fat, and maximum per cent of crude fiber, the specific name of each ingredient, expressed in its common or usual term, together with name and address of the manufacturer. Labels must be clear and distinct, in type of sufficient size to be easily read, and must conform in all cases to the uniform label adopted by the Association of American Feed Control Officials.

Rule 19. Weights: When feed is shipped in bulk, Seller's weights are final if sworn certificates of weight acceptable as a basis against the carrier are furnished by the Seller at time of shipment unless otherwise specified.

In case of shortage, and certificates herein above described are not furnished by the Seller, Buyer's sworn weight certificate acceptable as a basis of claim against the carrier, or railroad weights, shall be the weight basis for use in settlement of such shortage claims.

Rule 20. Wheat By-Products Feeds: Durum wheat by-products shall not be deliverable on contracts for wheat by-product feeds unless so specified and/or mutually agreed to by both Buyer and Seller.

Rule 21. Registration: On sales of feedstuffs the Seller guarantees that the feedstuffs shall comply with the laws of the State into which it is sold, including registration and tax, if any, unless otherwise agreed at the time of sale.

Rule 22. Government Taxes on Freight Charges: Unless otherwise agreed at the time of purchase or sale, all Government taxes on freight charges shall be paid as follows: On all feed sold delivered, it shall be the duty of the Seller to pay all taxes imposed by the Government. It shall be the duty of the Buyer to pay the said taxes on all feed bought f.o.b. shipping point. It is the intention of this rule to impose the said taxes upon the party who, by the terms of the contract, assumes liability for the freight charges.

Rule 23. Alteration of Contract: The specifications of a contract cannot be altered or amended without the expressed consent of both the Buyer and Seller. (This abolishes the custom of "silence confirms.")

Rule 24. Arbitration: In cases of arbitration of disputes resulting from transactions in feedstuffs, where one or both parties to the dispute are members of trade associations or Exchanges that have adopted these rules, these rules shall define the rights of the parties and shall be the basis of award.

(b) The decision of an arbitration committee of this association shall be final except as provided in Section 9 of the Arbitration Rules.

Balata belting is a type of woven fiber belting impregnated with balata gum, the dried milky juice extract from the tropical bully tree, Mimusops globosa. This gum is also used in insulating telephone cables and in making golf balls.

Formula Feeds, Quantity and Value, 1947 & 1939

Note: These figures cover establishments engaged primarily in manufacturing prepared feeds for animals and fowls. Source: U.S. Bureau of the Census

(Money figures in millions; quantities in thousands of tons)

PRODUCT—	1947 Shipments Quantity	1947 Shipments Value*	1939 Production Quantity	1939 Production Value
PREPARED FEEDS, TOTAL	....	$2,211	....	n.a.
Poultry and livestock feed, total†	23,298	1,982	n.a.	n.a.
Grain (ground, rolled, chopped or crimped)	1,684	....	....	....
Scratch feeds	1,758	....	....	....
Chicken mashes (under 21% protein):				
Layer and breeder	4,318	....	....	....
Starter	884	....	....	....
Grower	1,173	....	....	....
Broiler	1,522	....	....	....
Turkey mash (under 21% protein)	447	....	....	....
Other poultry feeds (under 21% pr.)	412	....	....	....
Supplements and concentrates (over 21% protein)	834	....	....	....
Dairy feed (under 21% protein)	4,884	....	....	....
Dairy feed (over 21% protein)	898	....	....	....
Beef and range cattle feed	438	....	....	....
Sheep and goat feed	71	....	....	....
Pig and hog feed (under 21% prot.)	771	....	....	....
Pig and hog feed (over 21% prot.)	791	....	....	....
Horse and mule feed	434	....	....	....
Other livestock feeds‡	717	....	....	....
Poultry and livestock feeds, kind not specified	447	....	....	....
Dog and cat food, total	....	96	....	$33
Canned	214	34	231	23
Biscuit, pellets and meal	249	61	124	10
Miscellaneous feeds, total	....	66	....	n.a.
Mineral mixtures	259	16	304	6
Alfalfa meal, uncured	287	16 }	613	8
Alfalfa meal, dehydrated	723	24 }		
Other prepared feeds**	....	19	n.a.	n.a.
Prepared feeds, kind not specified††	....	31	....	....

*This table includes feeds made by all producers included in the Census of Manufactures.

†Not including byproduct feeds sold for direct consumption as such (tankage, gluten feed, beet pulp, etc.). Feeds mixed on farms or by small farm supply dealers also are not included.

‡Includes feed for rabbits, mink, foxes, laboratory animals, etc.

**Includes crushed oyster shells, egg shells, dried citrus pulp, and other miscellaneous prepared materials used as feeds or feed adjuncts.

††Includes total sales ($31 million) of small establishments classified in the "Prepared animal feeds" industry for which no breakdown of sales was tabulated.

Formula Feed Industry, Materials Consumed, 1947

Note: Dollars in millions; quantities in millions of bushels or thousands of tons. Source: U.S. Bureau of the Census

MATERIAL—	Quantity	Cost (Delivered)
GRAINS (IN BUSHELS):		
Barley	19.9	$ 48
Corn	118.4	292
Oats	111.6	124
Sorghum	16.8	33
Soybeans	7.3	23
Wheat	25.1	69
Other grains	2.9	6
Other materials (in tons):		
Corn meal	891	83
Gluten feed and meal	687	46
Hominy feed and meal	348	25
Brewers' and distillers' grains	442	29
Millfeeds and screenings	1,769	161
Cottonseed cake and meal	283	24
Soybean cake and meal	2,182	199
Linseed cake and meal	295	27
Other oilcake and meal	158	15
Meat scrap	149	60
Tankage	188	18
Fish meal and scrap	197	28
Dried milk and whey	91	13
Beet and citrus pulp	157	5
Alfalfa meal	1,018	58
Molasses	578	28
Bone meal and minerals	....	19

This table shows the total consumption of listed materials (including materials consumed in the manufacture of certain non-feed items) by establishments accounting for 94% of the total value of shipments of the "Prepared animal feeds" industry. Because that industry shipped only 87% of the total of all feeds shipped by manufacturers included in the Census and because this table includes materials consumed in the manufacture of certain non-feed items it is not directly comparable to "Formula Feeds, Quantity and Value" table.

Definitions of Principal Grain By-Product Feeds

Following are definitions for the principal grain by-products feeds as approved by the Association of American Feed Control Officials:

BARLEY PRODUCTS

Barley Feed is the entire by-product resulting from the manufacture of pearl barley from clean barley.

Barley Hulls are the product consisting of the outer covering of the barley.

Barley Mixed Feed is the entire offal from the milling of barley flour from clean barley, and is composed of barley hulls and barley middlings.

Ground Barley is the entire product obtained by grinding clean, sound barley, containing not less than 95% of pure barley and not more than 10% of other grains, weed seeds and other foreign material, and not more than 4% crude fiber, provided, that no portion of this stated 10% of other grains, weed seeds or other foreign material shall be intentionally added.

Mixed Feed Barley is the entire product obtained by grinding country run barley containing not less than 75% of pure barley and not more than 25% of other grains, weed seeds and other foreign material; provided, that no portion of this stated 25% of other grains, weed seeds or foreign material shall be intentionally added. The ingredients must be stated as barley, other grains, weed seeds and foreign material.

Rolled or Crimped Barley is heavy barley that has been rolled to desired thickness after tempering by an air kiln to crumble. It shall contain not less than 95% pure barley and not more than 10% weed seeds or other foreign materials and not more than 4% crude fiber.

BUCKWHEAT PRODUCTS

Buckwheat Feed is a mixture of buckwheat middlings and buckwheat hulls. It must not contain more than 30% of crude fiber.

Buckwheat Middlings are that portion of the buckwheat grain immediately under the hull after separation of the flour. It shall contain no more hulls than is obtained in the usual process of buckwheat milling, and must not contain more than 16% of crude fiber.

CHOP

Chop is a ground or chopped feed composed of one or more different cereals or by-products thereof. If it bears a name descriptive of the kind of cereals, it must be made exclusively of the entire grains of those cereals.

CORN PRODUCTS

Ear Corn Chops with Husks is corn, cob and husks chopped, with no greater proportion of cob and husks than occurs in the ear corn in its natural state.

Flaked Corn is the product obtained by tempering cracked corn which has been aspirated and properly tempered, over smooth flaking rolls and subsequently dried and cooled.

Corn Germ Cake consists of corn germ with other parts of the corn kernel from which part of the oil has been pressed.

Formula Feed Industry, Material Consumed, 1947

Note: These figures cover establishments engaged primarily in manufacturing formula feeds for animals and fowls. Shipments in these establishments amounted to 94% of the total value of shipments of the formula feed industry. 000's omitted.

Source: U.S. Bureau of the Census

Division and state	Total feed	Barley Quantity (lbs.)	Barley Value	Corn (except corn meal) Quantity (lbs.)	Corn Value	Oats Quantity (lbs.)	Oats Value	Sorghum grain Quantity (lbs.)	Sorghum grain Value	Soybeans Quantity (lbs.)	Soybeans Value	Wheat Quantity (lbs.)	Wheat Value	Other grains** Quantity (lbs.)	Other grains** Value	Corn meal Quantity (tons)	Corn meal Value
U. S.	**$1,308,991**	**30,551**	**$48,463**	**237,503**	**$397,337**	**111,391**	**$173,991**	**16,637**	**$32,445**	**7,730**	**$21,686**	**41,264**	**$103,130**	**7,004**	**$4,561**	**693**	**$53,324**
New Eng.																	
Maine	924	*	*	*	*	*	*	—	—	—	—	*	*	—	—	1	1
New Hamp.	8,434	*	*	*	*	*	*	—	—	—	—	179	332	—	—	*	*
Vermont	44,891	450	805	*	*	5,824	4,835	*	*	—	—	539	1,437	*	*	*	*
Mass.	19,744	187	312	1,150	2,718	1,341	1,814	*	*	—	—	358	884	*	*	*	*
Conn.	1,542	*	*	1,924	2,199	291	198	—	—	*	*	191	432	7	4	1.2	101
M. Atlantic																	
N. York	235,876	2,414	4,818	21,559	47,607	24,432	27,188	*	*	170	741	3,999	8,133	439	483	117.8	8,941
N. Jersey	21,167	219	344	2,279	5,175	2,449	3,304	*	*	*	*	1,192	3,183	1	*	16.7	1,313
Penn.	85,424	1,513	1,477	8,841	15,313	3,472	5,192	194	387	7	7	3,418	4,274	288	734	41.0	3,199
E. N. Cent.																	
Ohio	111,831	1,398	1,748	11,941	25,482	5,228	8,078	115	488	*	*	1,241	3,087	198	189	22.8	1,587
Indiana	50,177	208	322	5,182	8,264	2,165	2,475	3	7	*	*	917	2,127	*	*	*	*
Illinois	84,583	1,147	2,062	7,204	16,157	8,589	8,190	194	372	36	104	731	1,824	*	*	*	*
Michigan	5,477	*	*	635	1,192	209	430	*	*	3	3	170	447	3	5	4	4
Wisconsin	32,418	288	481	8,738	17,493	6,244	8,343	*	*	*	*	152	468	4	8	1	1
W. N. Cent.																	
Minnesota	41,947	493	1,312	2,277	4,305	4,714	4,224	43	194	1	1	1,693	3,871	32	164	16.2	812
Iowa	38,189	*	*	2,435	5,846	4,124	4,357	218	400	*	*	443	1,426	7	7	6.2	346
Missouri	70,476	129	242	6,959	19,073	4,633	5,829	760	1,416	*	*	1,012	2,410	1	1	47.7	2,133
No. Dak.	191	*	*	1	1	1	1	*	*	—	—	*	*	*	*	—	—
So. Dak.	1,147	*	*	255	434	166	147	*	*	—	—	*	*	*	*	1	1
Nebraska	19,842	1	1	1,414	2,574	558	539	*	*	—	—	374	816	*	*	1	1
Kansas	21,657	139	215	2,129	4,419	1,264	1,166	766	1,418	1	1	123	264	—	—	1	1
S. Atlantic																	
Delaware	15,352	1	1	*	*	*	*	*	*	—	—	78	137	—	—	*	*
Maryland	18,770	151	407	2,239	4,764	1,324	1,826	158	311	—	—	278	745	*	*	*	*
Virginia	25,849	179	281	2,551	5,419	1,511	1,835	*	*	*	*	2,331	5,774	1	1	18.6	1,224
West Va.	3,808	*	*	479	1,059	297	319	*	*	1	1	61	170	*	*	1	1
N. Carolina	31,884	159	141	2,808	5,909	1,786	1,793	314	434	*	*	4,763	12,162	2	2	19.7	1,557
S. Carolina	7,087	1	1	588	1,416	488	497	*	*	—	—	166	1,142	*	*	1	1
Georgia	13,490	1	1	1,835	4,081	1,503	1,504	16	111	—	—	791	1,813	7	1	2.6	317
Florida	8,542	1	1	477	2,041	1,337	1,159	*	*	—	—	171	455	—	—	1.4	419
E. S. Cent.																	
Kentucky	15,811	74	138	2,474	4,879	484	816	14	114	—	—	1,218	3,018	—	—	4.8	720
Tennessee	31,784	175	303	4,414	8,722	3,445	5,834	173	700	*	*	918	2,181	1	1	*	*
Alabama	26,762	*	*	4,873	10,498	*	*	132	347	—	—	484	1,162	1	1	*	*
Miss.	14,190	148	314	2,710	6,187	1,712	1,835	158	232	—	—	244	592	*	*	1	1
W. S. Cent.																	
Arkansas	15,748	112	178	3,041	5,161	1,424	2,556	138	378	—	—	109	249	*	*	3.8	471
Louisiana	11,028	*	*	1,478	3,025	1,128	1,148	*	*	—	—	90	184	*	*	1	1
Oklahoma	11,038	61	101	1,845	3,924	432	1,490	334	1,114	1	1	135	314	—	—	1	1
Texas	41,844	243	473	5,246	10,198	7,152	7,024	1,913	3,939	—	—	4,384	10,043	230	474	22.1	1,641
Mountain																	
Montana	1,548	172	193	81	181	245	238	—	—	—	—	7	5	1	1	—	—
Idaho	1,541	*	*	*	*	*	*	—	—	—	—	1	*	*	*	—	—
Colorado	8,334	273	412	855	1,559	491	595	131	192	*	*	81	187	*	*	*	*
New Mex.	*	*	*	*	*	*	*	*	*	—	—	*	*	—	—	*	*
Arizona	3,973	199	1,015	115	262	191	445	192	502	—	—	193	439	1	*	—	—
Utah	8,177	776	1,551	*	*	337	551	*	*	*	*	518	1,179	—	—	—	—
Nevada	131	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific																	
Washington	12,549	774	1,414	1,242	2,618	1,747	3,144	*	*	*	*	1,418	3,734	50	164	*	*
Oregon	12,083	834	1,438	840	1,888	1,748	4,600	118	262	*	*	891	2,444	*	*	*	*
California	126,359	12,104	21,419	16,178	32,156	5,705	8,947	4,778	9,749	*	*	1,970	18,126	183	244	3.1	261
Undistributed‡	5	238	431	4,337	11,734	4,134	5,214	3,160	6,618	5,661	21,581	78	172	953	1,488	392.8	27,844

*Withheld to avoid disclosing figures for individual companies.

†Value less than $100,000.

‡Undistributed figures included in total and for each state; are the totals of state figures withheld.

**Rye, buckwheat, etc.

and is the product obtained in the dry milling process of manufacture of corn meal, corn grits, hominy feed and other corn products.

Corn Germ Meal is ground corn germ cake.

Corn Gluten Feed is that part of commercial shelled corn that remains after the extraction of the larger part of the starch and germ by the processes employed in the wet milling manufacture of cornstarch or syrup. It may or it may not contain one or more of the following: corn solubles, corn oil meal.

Corn Gluten Meal is that part of the commercial shelled corn that remains after the extraction of the larger part of the starch and germ, and the separation of the bran by the processes employed in the wet milling manufacture of cornstarch or syrup. It may or it may not contain one or more of the following: corn solubles, corn oil meal.

Corn Oil Cake consists of the corn germ from which part of the oil has been pressed, and is the product obtained in the wet milling process of manufacture of cornstarch, corn syrup and other corn products.

Corn Oil Meal is ground corn oil cake.

Corn Chop, Ground Corn or Cracked Corn is the entire product made by grinding, cutting or chopping the grains of sound Indian corn, and may be fine, medium or coarse. It must not contain more than 4% of foreign material.

Screened Corn Chop, Screened Ground Corn, or Screened Cracked Corn is the coarse portion of corn chop, ground corn or cracked corn from which most of the fine particles have been removed. It must not contain more than 4% of foreign material.

Corn Meal (Feeding) is finely ground, unbolted corn.

Corn Bran is the outer coating of the corn kernel, with little or none of the starchy part or germ.

Corn Feed Meal is the fine siftings obtained in the manufacture of screened corn chop, screened ground corn or screened cracked corn, with or without its aspiration products added.

Corn Grits, Hominy Grits is the product consisting of the fine or medium-sized, hard, flinty portions of sound Indian corn containing little or none of the bran or germ.

Corn Screenings is the product consisting of the small, light grains of corn, parts of grains of corn or other cereals, and other materials having feeding value, separately or together, obtained by screening shelled corn, excluding sand, dirt and other similar inert materials.

Ear Corn Chops is corn and cob chopped, without the husk, with no greater proportion of cob than occurs in the ear corn in its natural state.

Maltose Process Corn Gluten Feed is the dried residue from degermed corn, after removal of the starch in the manufacture of malt syrup.

Hominy Feed is a mixture of corn bran, corn germ and a part of the starchy portion of either white or yellow corn kernels or mixture thereof as produced in the manufacture of pearl hominy, hominy grits or table meal, and shall contain not less than 5% of crude fat. If prefixed with the words "white" or "yellow," the product must correspond thereto.

OAT PRODUCTS

Oat Hulls is the product consisting of the outer covering of the oat.

Oat Middlings is the product consisting of the floury portions of the oat groat obtained in the milling of rolled oats.

Oat Shorts is the product consisting of the covering of the oat grain lying immediately inside the hull, being a fuzzy material carrying with it considerable portions of the fine floury part of the groat obtained in the milling of rolled oats.

Clipped Oat By-product is the by-product obtained in the manufacture of clipped oats. It may contain the light, chaffy material broken from the end of the hulls, empty hulls, light, immature oats and dust. It must not contain an excessive amount of oat hulls.

Oat Chop, Ground Oats, Pulverized Oats, Crushed Oats or Crimped Oats consist of the entire product made by chopping, cutting, grinding, crushing or crimping whole oats.

Formula Feed Industry, Material Consumed, 1947

Note: These figures cover establishments engaged primarily in manufacturing formula feeds for animals and fowls. Shipments in these establishments amounted to 94% of the total value of shipments of the formula feed industry. 000's omitted.

Source: U.S. Bureau of the Census

Division and state	Tankage Quantity (tons)	Tankage Value	Fish meal and scrap Quantity (tons)	Fish meal and scrap Value	Dr. skim milk and buttermilk Quantity (lb.)	Dr. skim milk and buttermilk Value	Dried whey Quantity (lb.)	Dried whey Value	Beet pulp (plain and molasses) Quantity (tons)	Beet pulp Value	Citrus pulp Quantity (tons)	Citrus pulp Value	Alfalfa meal Quantity (tons)	Alfalfa meal Value	Molasses Quantity (tons)	Molasses Value	Bone meal and minerals Quantity (tons)	Bone meal and minerals Value
U. S.	161	$11,941	187	$35,647	61,516	$5,161	118,065	$6,123	68	$1,000	39	$1,071	1,010	$54,770	308	$31,400	....	$10,170
New Eng.:																		
Maine	....	....	*	*	....	....	....	....	†	†	†	†	†	†	†	†	....	*
New Hamp.	....	....	1.8	161	....	....	†	†	†	†	†	†	4.4	288	*	*	....	*
Vermont	....	....	1.9	168	*	*	*	*	†	*	†	†	17.2	1,194	18.8	1,021	....	170
Mass.	....	....	4.2	465	†	†	*	*	†	†	†	†	9.2	622	*	*	....	†
Connecticut	....	....	†	†	†	†	*	*	†	†	†	†	2.4	156	†	†	....	†
M. Atlantic:																		
New York	*	*	30.1	2,995	5,001	427	27,855	1,773	8.0	102	†	†	108.8	8,159	184.4	8,148	....	3,942
New Jersey	†	†	3.9	478	*	*	2,112	161	†	†	....	....	3.6	395	4.0	294	....	†
Pennsylvania	3.2	208	7.4	855	7,337	621	4,453	279	1.8	112	†	†	51.9	3,862	12.8	734	....	846
E. N. Cent.:																		
Ohio	2.7	418	1.8	1,254	8,345	563	6,492	425	11.0	110	*	*	41.3	2,982	29.1	1,390	....	962
Indiana	4.7	411	8.8	1,282	1,840	167	3,817	241	†	†	*	*	51.5	3,872	12.4	739	....	784
Illinois	11.4	2,141	10.8	2,472	8,171	727	8,834	558	2.1	127	†	†	197.4	8,818	31.9	1,494	....	3,669
Michigan	†	†	†	†	†	†	†	†	†	†	....	....	2.3	179	†	†	....	†
Wisconsin	†	†	†	†	†	†	†	†	†	†	†	†	8.3	474	4.9	298	....	449
W. N. Cent.:																		
Minnesota	8.9	1,119	7.1	1,128	2,474	325	1,782	148	3.2	165	†	†	27.5	1,481	12.4	447	....	448
Iowa	14.2	1,161	3.1	417	3,289	225	1,162	180	*	*	†	†	25.3	1,420	8.2	471	....	1,889
Missouri	8.5	1,116	5.7	794	†	†	*	*	*	*	*	*	49.2	2,838	44.5	2,099	....	1,898
No. Dakota	....	....	†	†	*	*	....	....	....	....	....	....	*	†	†	†	....	†
So. Dakota	†	†	†	†	*	*	†	†	....	....	....	....	†	†	†	†	....	*
Nebraska	3.4	471	2.1	243	1,329	117	†	†	†	†	†	†	33.5	1,891	8.2	480	....	718
Kansas	*	*	1.6	191	†	†	1,795	134	†	†	†	†	44.3	2,414	19.8	559	....	397
S. Atlantic:																		
Delaware	....	....	*	*	†	†	*	*	†	†	†	†	*	*	*	*	....	*
Maryland	1.3	174	1.6	213	†	†	1,888	119	†	†	†	†	7.5	479	6.0	356	....	*
Virginia	†	†	2.2	243	†	†	*	*	†	†	†	†	11.6	688	6.7	347	....	174
W. Virginia	†	†	†	†	*	*	....	....	†	†	....	....	†	†	†	†	....	*
No. Carolina	2.2	279	5.5	614	2,106	138	2,479	191	†	†	†	†	13.4	767	7.8	442	....	231
So. Carolina	....	....	2.8	343	*	*	*	*	†	†	†	†	5.1	301	2.1	162	....	*
Georgia	†	†	†	†	†	†	†	†	†	†	†	†	9.4	574	7.1	367	....	206
Florida	†	†	1.1	132	*	*	†	†	†	†	4.2	278	7.2	497	8.0	636	....	127
E. S. Cent.:																		
Kentucky	†	†	†	†	†	†	*	*	....	....	....	....	11.1	667	8.9	381	....	*
Tennessee	3.1	277	4.0	484	†	†	2,541	472	1.6	186	2.0	64	44.7	2,120	37.0	1,681	....	682
Alabama	†	†	†	†	*	*	*	*	†	†	....	....	12.6	716	9.8	807	....	888
Mississippi	†	†	†	†	†	†	*	*	†	†	†	†	14.2	860	10.6	618	....	168
W. S. Cent.:																		
Arkansas	†	†	†	†	*	*	†	†	†	†	†	†	5.6	391	8.3	423	....	368
Louisiana	....	....	†	†	*	*	*	*	†	†	†	†	6.1	352	5.2	387	....	*
Oklahoma	†	†	....	....	*	*	*	*	†	†	....	....	9.1	604	2.0	166	....	*
Texas	3.6	383	3.9	555	2,494	185	3,446	231	†	†	5.8	227	41.5	3,188	34.6	1,766	....	634
Mountain:																		
Montana	†	†	†	†	*	*	*	*	†	†	....	....	*	*	*	*	....	*
Idaho	....	....	†	†	*	*	*	*	†	†	....	....	*	*	*	*	....	*
Colorado	†	†	†	†	†	†	*	*	†	†	....	....	8.1	366	6.6	366	....	*
New Mexico	†	†	....	....	....	....	†	†	....	....	†	†	....	....	†	†	....	†
Arizona	....	....	†	†	*	*	*	*	†	†	†	†	†	†	*	†	....	*
Utah	†	†	2.5	412	†	†	*	*	†	†	....	....	12.6	640	*	*	....	†
Nevada	....	....	....	....	....	....	....	....	....	....	....	....	*	*	....	....	....	....
Pacific:																		
Washington	†	†	1.5	214	1,887	121	†	†	2.0	121	....	....	8.5	465	*	*	....	†
Oregon	†	†	2.8	439	1,181	145	1,884	131	†	†	†	†	14.5	719	2.1	126	....	162
California	*	*	27.2	3,708	4,055	365	12,724	838	77.5	1,292	6.8	211	138.1	6,314	21.2	899	....	3,168
Undistributed‡	20	1,146	†	494	12,409	1,019	14,912	1,164	7	418	19	607	18	2,349	67	3,063	....	564

*Withheld to avoid disclosing figures for individual companies.
†Value less than $100,000.
‡Undistributed figures (included in total sum for each state) are the totals of state figures withheld.

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Central Retail Feed Assn.

Oat Groats are the kernels produced from cleaned and dried oats in the process of manufacturing oatmeal.

Hulled Oats, Undried Oat Groats are the kernels produced from the undried grain in the process of hulling oats.

Feeding Oatmeal is a product obtained in the manufacture of rolled oat groats or rolled oats and consists of broken rolled oat groats, oat groat chips, and floury portions of the oat groats, with only such quantity of finely ground oat hulls as is unavoidable in the usual process of commercial milling. It must not contain more than 4% of crude fiber.

Oat Millfeed (Oat Hulls, Oat Shorts and Oat Middlings) is the entire by-product produced in the manufacture of oat groats and consists of oat hulls, oat shorts and oat middlings. If used in a mixed feed, it shall be called Oat Millfeed (Oat Hulls, Oat Shorts and Oat Middlings).

Cut Oat Groats, Cracked Oat Groats, or Ground Oat Groats is the product produced by cutting, cracking or grinding oat groats.

RYE PRODUCTS

Rye Bran is the coarse outer covering of the rye kernel as separated from the cleaned and scoured rye.

Rye Feed, a by-product obtained in the usual process of the milling of rye flour from cleaned and scoured rye, consisting principally of the mill run of the outer covering of the rye kernel and the rye germ, with small quantities of rye flour and aleurone, and must not contain more than 9.5% of crude fiber.

Rye Flour Middlings consist of rye feed, rye red dog and rye flour combined in the proportions obtained in the milling of rye flour, and must not contain more than 8.5% of crude fiber.

Rye Low Grade Feed Flour consists principally of rye flour and small quantities of aleurone and fine rye bran particles, and must not contain more than 1.5% crude fiber.

Rye Middlings consist of rye feed and rye red dog combined in the proportions obtained in the usual process of milling rye flour, and must not contain more than 8.5% of crude fiber.

Rye Red Dog, a by-product obtained in the usual process of the milling of rye flour, consisting principally of aleurone with small quantities of rye flour and fine rye bran particles, and must not contain more than 3.5% crude fiber.

SCREENINGS

Scourings consist of such portions of the cuticle, brush, white caps, dust, smut and other materials as are separated from the grain in the usual commercial process of scouring.

Screenings consist of a mixture of mill or elevator run materials or a combination of varying amounts of materials obtained in the process of cleaning grain or seed, either or both, such as inferior, light or broken grain or seed, weed seeds, hulls, chaff, joints, straw, elevator dust, floor sweepings. They must be relatively free of unpalatable or injurious weed seeds, sand and dirt. They must not contain more than 14% of fiber or more than 6.50% of ash. If they bear a name descriptive of their kind or origin, they must correspond thereto.

Screenings, Grain, consist of inferior, light or broken grain or seed obtained in the process of cleaning grain or seed or recleaning screenings, either or both. They must be relatively free of weed seeds, chaff, straw, hulls, joints, sand and dirt, and other foreign materials. If they bear a name descriptive of their kind or origin, they must correspond thereto.

Screenings Waste or Screenings Refuse is a mixture of materials or combination of varying amounts of materials obtained in the process of cleaning grain or seed, either or both, or recleaning screenings, such as weed seeds which may be unpalatable or injurious, chaff, hulls, straw, sticks, joints, elevator dust, floor sweepings, sand and dirt.

Screenings Oil Feed is the ground product obtained after extraction of part of the oil by crushing, cooking and hydraulic or mechanical pressure, or by crushing, heating and the use of solvents from flaxseed screenings and other materials having feeding value separated in cleaning grain or other seeds. It must be designated and sold according to its protein content.

WHEAT PRODUCTS

Wheat Bran is the coarse outer covering of the wheat kernel as separated from cleaned and scoured wheat in the usual process of commercial milling.

Wheat Mixed Feed consists of the coarse outer covering of the wheat kernel, fine particles of wheat bran, wheat germ and wheat flour, and the offal from the "tail of the mill." This product shall be obtained in the usual process of commercial milling and shall contain not more than 9.5% of crude fiber.

Wheat Standard Middlings consists of fine particles of wheat bran, wheat germ, wheat flour and some of the offal from the "tail of the mill." This product shall be obtained in the usual process of commercial milling and shall contain not more than 9.5% of crude fiber.

Wheat Brown Shorts consists of fine particles of wheat bran, wheat germ, and wheat flour and some of the offal from the "tail of the mill." This product shall be obtained in the usual process of commercial milling and shall contain not more than 7.5% of crude fiber.

Wheat Gray Shorts, Wheat Gray Middlings, or Wheat Flour Middlings consists of fine particles of wheat bran, wheat germ, wheat flour, and the offal from the "tail of the mill." The product shall be obtained in the usual process of commercial milling and shall contain not more than 6% of crude fiber.

Wheat Red Dog, Wheat White Shorts or Wheat White Middlings consists of the offal from the "tail of the mill" together with some fine particles of wheat bran, wheat germ and wheat flour. This product shall be obtained in the usual process of commercial milling and shall contain not more than 4.0% of crude fiber.

Wheat Feed Flour consists principally of wheat flour together with fine particles of wheat bran, wheat germ and the offal from the "tail of the mill." This product shall be obtained in the usual process of commercial milling and shall contain not more than 1.5% of crude fiber.

Wheat Germ Meal consists chiefly of wheat germ together with some bran and middlings or shorts. It shall contain not less than 25% of protein and 7% of fat.

Wheat Germ Oil Cake is the cake secured in the removal of part of the oil from wheat germ meal and shall contain not less than 28% of protein.

Wheat Germ Oil Meal is ground wheat germ oil cake.

Soybean Prices at Chicago

Source: Chicago Board of Trade. High and low for No. 2 yellow:

	[illegible]	[illegible]
January	[illegible]	[illegible]
February	[illegible]	[illegible]
March	[illegible]	[illegible]
April	[illegible]	[illegible]
May	[illegible]	[illegible]
June	[illegible]	[illegible]
July	[illegible]	[illegible]
August	[illegible]	[illegible]
September	[illegible]	[illegible]
October	[illegible]	[illegible]
November	[illegible]	[illegible]
December	[illegible]	[illegible]
Range	[illegible]	[illegible]

State Laws for Feedstuffs

Note: The following summary of state laws regarding the sale of formula feeds has been made on the basis of information received up to Jan. 1, 1950. Manufacturers doing an interstate business are advised to communicate with the state officials indicated in this summary for further details and for information concerning possible changes.

ALABAMA

Registration is required annually on or before Oct. 1, or before offered for sale; fee $1 per brand. Inspection fee is 20¢ per ton, payable by stamps attached to each package or (by permit) on or before the 20th of each month for the tonnage and kind of commercial feed sold the preceding month. All feedstuffs used for feeding domestic animals and domestic wild birds require registration; except whole seeds or grains, unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kaffir and milo when packed for human consumption, whole hays, straws, cottonseed hulls and corn stover when unmixed with other materials. Deposit of samples is not necessary unless requested. Label must show net weight, name, brand or trademark, name and address of manufacturer, jobber or importer, minimum percentage of crude protein and fat and nitrogen-free extract, maximum percentage of crude fiber, names of ingredients and percentage of each mineral or chemical added. Prohibited ingredients of commercial feeds are: rice hulls, oat hulls, cottonseed hulls, peanut hulls, barley hulls, corn cobs, oat hulls (so-called coconut hull meal), grit, oyster shell containing less than 91% calcium carbonate, weed seeds, mill oats or mill oats, ground straw, sugar cane bagasse (sugar cane pomace), corn cobs or shucks, and other materials which have little or no nutritional value. Weight standards: 2 and 4½ lb. when packed 12 to a bale; 10, 25, 50, 100, 150 and 200 lb. Administrative officer: Commissioner of Agriculture and Industries, Montgomery.

ARIZONA

Inspection fee is 8¢ ton. Registration is required annually on or before Jan. 1 (no fee) on all materials for feeding animals or birds except unmixed whole seeds or grains, unmixed meals made directly from the entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kaffir, milo and other grain sorghums, unground hays, straws, cottonseed hulls, stover and silage when unmixed with other materials. Sufficient tax tags or stamps must be delivered to cover sale and a statement containing label information for all goods sold in bulk or in packages belonging to purchaser. Deposit of samples is not necessary unless requested. Label must show net weight, name, brand or trademark, name and address of manufacturer or person responsible for marketing, minimum percentages of crude protein and fat, maximum percentage of crude fiber, specific name of each ingredient; mineral feeds must also bear label showing percentage of calcium, phosphorus and iodine and maximum per cent of salt. Administrative officer: State Chemist, University of Arizona, Tucson.

ARKANSAS

Inspection fee is 10¢ a ton payable quarterly on sworn statement of tonnage. Regis-

Formula Feed Industry, Material Consumed, 1947

Note: These figures cover establishments engaged primarily in manufacturing formula feeds for animals and fowls. Shipments in these establishments amounted to 94% of the total value of shipments of the formula feed industry. 000's omitted.

Source: U.S. Bureau of the Census

Division and state	Corn gluten feed & meal Quantity (tons)	Value	Hominy feed & meal Quantity (tons)	Value	Brewers' and distillers' spent grains Quantity (tons)	Value	Millfeeds and screenings Quantity (tons)	Value	Cottonseed cake & meal Quantity (tons)	Value	Soybean cake & meal Quantity (tons)	Value	Linseed cake & meal Quantity (tons)	Value	Other oil cake & meal Quantity (tons)	Value	Meat scrap Quantity (tons)	Value
U. S.	487	$46,184	344	$23,434	487	$29,093	3,369	$163,367	387	$74,147	2,287	$199,356	565	$66,723	130	$31,094	389	$38,043
New Eng.:																		
Maine	*	*	†	†	†	†	*	*	†	†	†	†	†	†	†	†	†	†
New Hamp.	4.1	289	*	*	*	*	15.1	1,158	†	†	8.2	490	†	†	...	...	5.5	337
Vermont	29.8	2,218	25.6	1,069	18.3	1,275	187.7	7,284	1.7	155	44.6	3,040	*	*	*	*	13.1	1,084
Massachusetts	4.4	378	4.6	442	3.8	273	51.0	3,544	†	†	24.3	2,189	*	*	†	†	9.3	782
Connecticut	3.3	212	2.0	127	†	†	7.8	333	†	†	5.4	340	†	†	†	†	3.9	419
M. Atlantic:																		
New York	283.4	13,783	117.9	6,633	144.5	8,255	608.7	28,833	11.9	1,015	417.9	35,847	43.5	4,267	34.3	2,003	67.9	7,085
New Jersey	4.1	318	†	†	8.5	441	21.7	1,941	†	†	19.8	1,328	1.9	147	†	†	13.1	1,307
Pennsylvania	40.7	3,475	11.8	891	21.1	1,348	129.0	6,961	8.7	787	129.4	16,739	4.3	736	10.7	935	29.1	3,027
E. N. Cent.:																		
Ohio	78.8	5,183	38.9	2,603	53.9	3,274	283.8	14,880	24.5	2,172	279.1	22,313	11.4	959	8.3	492	43.3	4,287
Indiana	15.5	1,018	4.4	477	18.8	718	66.3	4,217	7.7	788	143.4	11,347	4.2	389	1.8	172	26.9	2,943
Illinois	51.4	3,282	34.1	2,586	39.1	2,151	153.0	6,810	14.6	1,062	272.3	21,848	13.5	1,633	11.0	934	74.7	6,294
Michigan	3.5	258	1.7	121	3.9	149	7.8	484	†	†	11.0	819	†	†	†	†	6.7	495
Wisconsin	7.4	347	2.4	132	3.6	129	26.3	1,427	†	†	26.4	2,362	3.0	393	†	†	12.6	1,424
W. N. Cent.:																		
Minnesota	11.8	1,183	†	†	1.8	118	121.8	7,393	3.2	268	104.1	8,897	18.3	1,579	2.1	184	17.8	1,984
Iowa	2.6	441	†	*	2.9	214	77.3	5,354	5.7	186	102.7	6,963	18.2	1,279	2.4	248	24.3	2,777
Missouri	30.9	2,719	3.4	249	*	*	101.5	9,748	39.2	2,652	113.4	9,464	5.5	441	4.4	299	26.1	3,149
No. Dakota	†	†	†	*	...	...	...	...	*	*	†	†	†	†	†	†	†	†
So. Dakota	†	†	...	...	†	†	4.2	271	†	†	4.8	359	†	†	†	†	1.8	155
Nebraska	4.4	391	†	†	4.8	415	54.4	3,284	7.5	722	47.5	4,417	8.6	744	1.5	189	12.7	1,348
Kansas	6.8	461	*	*	5.0	155	71.2	6,271	0.6	229	38.7	3,328	1.6	337	1.6	119	7.3	789
S. Atlantic:																		
Delaware	*	*	*	*	*	†	*	*	†	†	*	*	†	†	†	†	*	*
Maryland	15.6	1,093	*	*	11.8	894	28.9	1,936	3.5	311	28.8	2,324	1.3	113	2.6	236	3.1	317
Virginia	9.3	411	1.3	146	11.2	784	34.1	3,272	3.8	238	34.2	2,809	†	†	7.1	405	10.0	1,009
W. Virginia	†	--	†	†	†	†	4.8	273	†	†	2.0	188	*	*	†	†	*	†
N. Carolina	13.3	809	4.2	341	11.7	798	41.9	3,011	10.8	875	38.1	3,334	†	†	5.1	408	8.3	933
S. Carolina	*	*	*	*	2.3	147	*	*	2.4	188	8.1	619	†	†	*	*	1.4	158
Georgia	5.1	372	4.1	319	4.1	281	24.0	1,490	9.9	419	6.3	538	†	†	5.7	435	4.3	449
Florida	7.4	888	2.4	189	8.2	491	18.7	1,083	5.5	523	8.3	721	†	†	6.6	289	1.0	111
E. S. Cent.:																		
Kentucky	3.8	274	6.2	417	14.3	1,094	32.5	2,131	3.6	334	26.1	2,094	†	*	†	†	1.8	184
Tennessee	29.3	1,713	13.9	915	18.3	1,119	176.9	7,343	39.3	1,890	67.1	4,887	2.4	297	3.7	391	13.7	1,334
Alabama	6.3	417	*	*	†	†	22.5	2,191	14.3	1,159	*	*	†	†	†	†	*	*
Mississippi	4.3	297	*	*	*	*	22.1	1,483	6.8	543	9.4	724	†	†	†	†	1.1	150
W. S. Cent.:																		
Arkansas	5.1	287	*	*	†	†	22.3	1,702	2.7	811	4.2	438	*	*	†	†	1.7	187
Louisiana	*	*	†	†	†	122	11.6	788	4.1	437	4.3	403	*	†	†	†	†	†
Oklahoma	1.4	156	†	†	†	†	34.2	2,171	2.9	268	13.3	1,122	†	†	†	†	4.7	822
Texas	23.3	1,479	4.4	437	6.1	358	95.4	4,281	33.5	2,954	51.1	4,719	3.7	518	18.7	772	29.6	1,874
Mountain:																		
Montana	*	*	†	†	†	†	*	*	†	†	*	*	†	†	†	†	†	†
Idaho	†	†	...	...	†	†	*	*	†	†	*	*	†	†	...	...	†	†
Colorado	*	*	...	...	†	†	6.8	874	1.7	231	19.4	851	1.2	104	†	†	2.1	211
New Mexico	...	...	...	...	...	...	†	†	†	†	†	†	...	...	...	...	†	†
Arizona	*	†	...	...	*	*	*	*	2.1	195	1.6	163	†	†	†	†	1.3	169
Utah	...	...	...	...	†	†	20.8	1,170	†	†	5.9	483	†	†	†	†	8.2	860
Nevada	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pacific:																		
Washington	*	*	*	*	*	*	50.2	1,667	*	*	15.0	1,407	2.1	160	*	*	4.4	498
Oregon	†	†	†	†	†	†	18.5	2,334	†	†	15.6	1,455	1.4	123	2.5	211	9.7	872
California	2.9	173	†	†	3.2	223	173.4	15,382	24.9	1,935	105.9	9,214	29.4	1,478	46.7	3,634	59.6	6,326
Undistributed‡	25	1,811	12	5,711	18	3,159	64	3,611	*	*	77	4,724	33	2,928	7	543	18	1,797

*Withheld to avoid disclosing figures for individual companies.

†Value less than $100,000.

‡Undistributed figures (included in total sum for each state) are the totals of state figures withheld.

tration is permanent; no fee, but each brand of feeds must be registered, except whole grains, hays, straws and unmixed whole seeds or grains of cereals. Unadulterated wheat, corn, rye and buckwheat bran, shorts and middlings are exempt from inspection fee. Deposit of samples is not necessary unless requested. Each package of commercial feed must have attached thereto a tag, or label printed on package, showing net weight, name, brand or trademark, name and address of manufacturer, jobber, or importer, minimum percentages of crude protein, crude fat, nitrogen-free extract, maximum percentage of crude fiber, names of each and all ingredients; standard weights: [illegible] lb. Enough tax stamps to cover sale must be delivered. Purchaser must be furnished with card with label information. Administrative officer: State Plant Board, [illegible] St., Little Rock.

CALIFORNIA

Annual license of $1 for each plant is due by July 1, or before offered for sale. Inspection tax is [illegible] a ton, payable with stamps or special tags. All feedingstuffs used for feeding livestock and poultry require registration, except whole seeds or grain, when unmixed; fresh green roughage and unprocessed liquid milk in all its forms; whole hays, straws, cottonseed hulls, corn stover and wet citrus pulp when unprocessed and unmixed with other materials; wet garbage; and salt, except in block or chunk form; and preparations which are sold as or represented to be primarily for the cure or mitigation of disease, and preparations which are sold for feeding domestic pets, such as dogs, cats and birds. Payment of tonnage tax must be indicated on the tag, either by the use of tonnage tax stamps or the official tonnage tax paid insignia printed on tags by tag companies or printers authorized to print this official tonnage tax paid insignia. Deposit of sample is not required. All packages must be labeled to show net weight; name, brand or trademark; name and address of manufacturer or person placing commodity on market; minimum percentages of crude protein, crude fat; maximum percentages of crude fiber and ash; recognized official name of each ingredient; percentage of corn cobs, oat hulls, barley hulls, rice hulls, ground light rice or similar materials; maximum percentage of mineral matter contained; and in the case of mixed feeds containing more than 1% mineral ingredients, minimum per cent of calcium (Ca), phosphorus (P), iodine (I), and the maximum percentage of salt if same be added; and maximum percentage of salt in any mixed feeds if more than 1% of salt is added. In the case of commercial feedingstuffs for which special qualities are claimed, such as vitamin potency, amino acid content, or protein quality, a definite guarantee relative to such quality. In cases where simple animal protein concentrates are sold or distributed, the quality index of such protein may be certified to in addition to the minimum percentage of crude protein. Administrative officer: Director, Department of Agriculture, Sacramento 14.

COLORADO

Registration is permanent at $1 for each brand with inspection fee 10¢ ton. All feedstuffs must be registered, except whole seeds or grains, unmixed meals made directly from and consisting of entire grains of corn, wheat, rye, barley, oats, kafir and milo, or a mixture of any two of the foregoing; whole hays, straws, sugar beet by-products, ensilage and cane molasses when unmixed with other materials; unmixed meal from whole alfalfa hay; alfalfa stem meal sold by manufacturer to consumer direct; other materials consisting of 60% or more of water. Deposit of sample is not necessary unless requested. The label, either on tag or printed on package, must contain net weight; name, brand or trademark; name and address of person responsible for placing commodity on market; minimum percentage of crude protein, fat and nitrogen-free extract; maximum percentage of crude fiber; specific name of ingredients. Administrative officer: Commissioner of Agriculture, Denver.

CONNECTICUT

Annual registration is required on or before Jan. 1, or before goods are offered for sale; fee $10 per brand. No wire or metal may be used in affixing tags or labels. Label either on tag or printed on package, must show net weight and name, brand or trademark; name and address of manufacturer or importer; minimum percentages of crude protein, crude fat, and the maximum percentage of crude fiber; and name of each ingredient. Materials requiring registration are: linseed meals, cottonseed meals, pea meals, bean meals, coconut meals, gluten meals, gluten feeds, dried brewers' grains, dried distillers' grains, malt sprouts, dried beet pulp, hominy feeds, cerealine feeds, rice meals, alfalfa meals, oat feeds, corn and oat chop, corn and oat feeds, scratch feeds, digester tank-

U.S. Consumption of By-Product Feeds Used as Feed by Crop Years

Source: U.S. Department of Agriculture. Note: Year begins in October. Figures shown represent production plus imports, minus exports, minus estimated use for food, industry and other non-feed uses. In tons, 000's omitted.

Season beginning October	Cottonseed cake & meal	Soybean cake & meal	Linseed cake & meal	Peanut cake & meal	Copra cake & meal	Total oilseed cake & meal	Fish cake & meal	Wheat millfeeds	Rice millfeeds	Gluten feed & meal	Alfalfa meal	Distillers' dried grains	Brewers' dried grains	Dried & molasses beet pulp
1949*........	2,116.5	3,960.6	600.5	73.0	173.0	7,109.5	233.3	4,499.0	190.3	856.0	1,066.0	325.9	233.0	245.6
1948........	2,723.0	4,019.8	499.6	78.9	186.0	7,165.0	229.0	4,926.0	140.0	845.0	1,006.0	315.0	238.0	233.0
1947........	1,914.8	3,393.0	401.0	102.0	177.0	6,224.0	311.0	5,549.0	177.0	798.0	1,013.0	253.0	128.0	311.8
1946........	2,431.0	2,745.0	379.0	55.5	190.0	5,827.5	191.0	5,141.2	186.0	1,049.9	1,049.0	419.0	229.0	290.8
1945........	2,413.0	2,858.5	583.8	83.7	69.7	6,003.8	194.0	4,896.0	253.0	692.8	1,181.0	325.8	212.7	214.8
1944........	2,581.0	3,627.8	458.7	96.1	42.5	6,206.8	209.0	5,428.9	149.5	863.9	921.7	634.5	216.8	182.0
1943........	2,790.1	3,323.0	999.0	119.9	72.8	6,255.0	196.2	5,547.4	136.6	842.1	732.5	444.1	231.0	181.0
1942........	2,877.5	2,574.0	784.4	108.6	22.8	6,066.0	202.5	5,323.5	146.7	827.2	679.6	356.2	239.4	209.0
1941........	3,420.8	1,793.3	892.3	78.7	79.7	6,036.7	207.2	4,819.5	124.4	964.6	598.0	345.3	177.8	294.9
1940........	2,841.9	1,491.1	740.6	157.1	174.8	4,602.4	283.4	4,785.8	124.9	718.8	479.0	206.1	115.7	323.0
1939........	2,761.7	1,275.8	393.6	38.1	178.7	3,647.6	237.2	4,624.6	118.9	614.6	440.0	162.4	100.2	186.0
1938........	3,052.8	1,019.7	293.6	74.8	128.7	3,438.7	248.7	4,792.0	124.2	566.9	418.0	149.1	103.4	238.0
1937........	2,333.7	718.6	177.0	56.4	117.3	3,396.2	321.4	4,448.3	124.3	545.2	370.0	149.8	102.5	246.8
1936........	2,091.3	331.5	273.2	66.4	136.8	3,107.1	274.3	4,669.9	109.0	510.5	330.6	231.3	114.1	290.4
1935........	1,718.5	414.1	262.1	47.4	127.7	2,771.4	328.8	4,739.3	88.5	588.6	284.0	243.4	97.9	228.0
1934........	1,616.3	185.8	202.3	47.3	112.4	2,153.9	188.4	4,412.6	44.9	442.8	204.9	......	......	249.8
1933........	1,760.3	84.8	142.2	11.4	117.1	2,078.1	188.8	4,267.2	33.0	578.7	233.5	......	......	252.8
1932........	1,699.3	111.6	202.4	16.9	94.6	2,107.0	130.2	4,288.3	......	688.2	193.9	......	......	282.0
1931........	1,749.6	133.3	204.5	13.7	75.2	2,166.7	106.1	4,369.5	......	510.9	178.4	......	......	193.0
1930........	1,821.0	122.8	334.5	17.8	88.5	2,381.8	121.1	3,948.3	......	841.1	248.3	......	......	281.9
1929........	2,014.7	114.3	368.3	55.1	109.5	2,641.7	139.8	5,116.8	......	847.4	374.7	......	......	211.6
1928........	1,834.1	91.6	459.1	17.5	109.9	2,481.6	119.8	5,078.7	......	702.1	350.7	......	......	165.9
1927........	1,571.5	81.1	493.9	22.4	95.4	2,343.5	84.3	5,029.8	......	702.8	374.2	......	......	183.0
1926........	2,259.4	93.3	433.7	9.8	97.2	2,703.1	71.0	6,077.0	......	646.6	......	......	......	183.8

*Preliminary

age, ground meat scraps, ground fish scraps, mixed feeds, provenders, bran, middlings and mixed feeds made wholly or in part from wheat, rye or buckwheat and all materials of a similar nature intended for feeding of domestic animals including poultry. Deposit of samples is not required. Administrative officer: Director, Agriculture Experiment Station, New Haven.

DELAWARE

Annual calendar year registration is required for each brand or before goods are offered for sale; registration fee $1 per brand. Feeds in packages or cans of 10 lb. or less may be registered for $15 per brand annually without tonnage tax. Report of total sales of each brand is required on or before Feb. 1 of each year, with payment of inspection fee at 15¢ per ton (10¢ per ton for poultry feed). Each package must be plainly marked on tag or printed on package with net weight of contents; name, brand or trademark; name and address of manufacturer or dealer; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; specific name of each ingredient. All materials used for feeding animals or birds require registration, except unmixed whole seeds or grains; unmixed meals made directly from the entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir, milo and other seeds or grains; whole hays, straws, cottonseed hulls, ensilage and corn stover when unmixed with other materials. Deposit of samples is not necessary unless requested. Administrative officer: Secretary, State Board of Agriculture, Dover.

FLORIDA

Registration is annual, under oath on or before Jan. 1 or before feeds are offered for sale. Inspection fee is 25¢ per ton. Seller must use special tags, except that packages of less than 25 lb. may carry inspection stamps in lieu of tags. Feeds for mixing purposes only are exempt from inspection fee, but must carry tags stating they are for mixing only and that the tax has not been paid. Registration is required of all materials used for feeding animals and birds, except unmixed whole seeds or grains, as defined by U.S. grain standards, and whole hays, straws, cottonseed hulls, stover, silage, etc., except that these "latter materials when ground, either mixed or unmixed, shall be registered as commercial feeds." Each package must have a tag or label attached stating the net weight, brand or trade name of the feed, name and address of the manufacturer or person responsible for placing commodity on market, minimum percentage of crude protein, crude fat, maximum percentage of crude fiber, name of each ingredient used in its manufacture, and the minimum or maximum percentage of added minerals as required by regulation. Deposit of samples is not required. Printing on package is optional, use of tag or label is "mandatory." Metal fasteners on tags are prohibited except on poultry feeds. Administrative officer: Commissioner of Agriculture, Tallahassee.

GEORGIA

Brands must be registered annually by Jan. 1 with registration fee of $2 for each brand. Inspection fee is 25¢ per ton. Stamps are to be secured from the state Department of Agriculture and affixed to the tags or labels. Materials requiring registration are: Cottonseed meal, linseed meal, corn and cob meal, coconut meal, gluten feeds, gluten meal, germ feeds, corn feeds, starch feeds, sugar feeds, dried brewers' grains, malt sprouts, dried distillers' grains, dried beet refuse, hominy feed, cerealine feeds, rice meals, rice brans, rice polish, peanut meal, oat feeds, corn and oat feeds, corn bran, wheat bran, wheat middlings, wheat shorts, ground beef or fish scraps, mixed feeds, clover meal, alfalfa meal and feeds, pea vine meal, cottonseed meal feeds, whole seeds and grains and meals, mixed or unmixed, made from such seeds or grains, and all other materials of a similar nature. Every package must have a tag or label stating net weight, name, brand or trademark, names of ingredients, name and address of the manufacturer, jobber or importer, and statement of maximum percentage of crude fiber and minimum percentage of crude fat and crude protein, names of ingredients. (This requirement is a regulation of the department. Statute does not require information.) Tag must be printed in black ink attached to package, or information may appear in form of printing on package. Deposit of samples is not necessary unless requested. Standard weights: 50, 75, 100, 125, 150, 175 and 200 lb. Administrative officer: Commissioner of Agriculture, Atlanta.

IDAHO

Annual registration is required on or before April 1; fee to be determined each year but not to exceed $5 for any one year. Inspection fee is 10¢ per ton, payable quarterly on statement of tonnage sold during the three months immediately preceding. Reports are to be filed on Jan. 15, April 15 and Oct. 15 of each year. All feedingstuffs used in feeding of livestock, fur bearing animals and poultry require registration, except unmixed meals made directly from and consisting of entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, grain sorghums, peas and beans; whole hays, straws, cottonseed hulls, corn stover; ground or whole mill screenings when unmixed with other materials. Label either in form of printing on package or tag attached to package, must show net weight of the contents of the package, lot or parcel; name, brand or trademark; name and principal address of the manufacturer or distributor; minimum percentage of crude protein, minimum percentage of crude fat; maximum percentage of crude fiber and ash, maximum percentage of grit and shell or other mineral matter added and specific name of each ingredient used in its manufacture. Upon request a sealed package containing at least one pound of the commercial feedingstuffs to be sold in this state is deposited, with affidavit that the said sample is representative of the commercial feedingstuffs offered for registration. Administrative officer: Commissioner of Agriculture, Boise.

ILLINOIS

Registration fee is $25 for each brand or $1 for each brand plus a 10¢ tonnage tax for each calendar year or portion thereof. Feeds intended for mixing purposes only must be registered and guaranteed under the $1 license fee; however, if tagged, "For Mixing Purposes Only," are exempt from payment of tonnage tax. Registration must be made annually on or before Jan. 1 or before offering goods for sale. Registration is required for all materials used for feeding animals or birds, except: whole seeds or grains; unmixed meals made directly from and consisting of the entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo; whole hays, straws, cottonseed hulls, corn stover and silage. Samples, not to exceed two pounds, must be taken in duplicate, one sample to be delivered to owner. Each package must be labeled showing net weight of contents; name, brand or trademark; name and principal address of the manufacturer or person responsible for placing commodity on market; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; name of ingredients; minimum percentage of calcium, phosphorus and iodine, and the maximum percentage of salt. If any foreign substance is added to "mixed feeds," composition of the mixture must be plainly indicated on the label. Administrative officer: Superintendent, Division of Foods and Dairies, Chicago.

INDIANA

No inspection fee, but state tags or labels must be used except on brands sold in packages of 5 lb. or less. Labels are issued for 25, 50 and 100 lb.; minimum order of $1. In case a feedingstuff is sold in packages of 5 lb. or less the manufacturer may pay an annual registration fee of $25 per brand in lieu of attaching Indiana state labels to each package of five pounds or less. In such cases the manufacturer's label on package must give the information required to appear on packages. Materials requiring registration are: linseed meals, coconut meals, gluten feeds, gluten meals, germ feeds, corn feeds, maize feeds, dairy feeds, starch feeds, sugar feeds, dried brewers' grains, malt sprouts, dried distillers' grains, dried beet refuse, hominy feeds, cerealine feeds, rice meals, rice bran, rice polish, peanut meals, oat feeds, corn and oat feeds, corn bran, wheat bran, wheat middlings, wheat shorts, and all other mill byproducts not otherwise excluded; ground beef or fish scraps, dried blood, blood meals, bone meals, tankage, meat meals, slaughter house waste products, mixed feeds, clover meals, alfalfa meals and feeds, pea vine meal, cottonseed meal, velvet bean meal, sucrene, mixed feeds and mixed meals made from seeds or grains, and all other materials of similar nature used for food for domestic animals; condimental feeds, poultry feeds, stock feeds, patented, proprietary or trade and market stock and poultry feeds. Exempted are: straw, whole seeds, unmixed meals made directly from and composed of entire grains of wheat, rye, barley, oats, Indian corn, buckwheat, and broom corn, wheat flours or other flours. Deposit of samples is not required. All packages must have official state chemist's label attached to package unless package is 5 lb. or less, showing net weight, name, brand or trademark, name and address of manufacturer, minimum percentage of crude protein and fat, maximum

U. S. By-Product Feed Production by Crop Years for the Years 1919-48

Source: Cottonseed cake and meal and wheat millfeeds, Bureau of the Census; soybean and linseed cake and meal, Grain Branch, Production and Marketing Administration, derived from Census crushings reports; brewers' and distillers' dried grains, copra cake and meal, and rice millfeeds, Production and Marketing Administration; fish cake and meal, Fish and Wildlife Service, Department of Interior; gluten feed and meal derived from reports of the Corn Industries Research Foundation. Note: Year begins in October. Output listed in tons, 000's omitted.

Season beginning	Cottonseed cake & meal	Soybean cake & meal	Linseed cake & meal	Peanut cake & meal	Copra cake & meal	Total oilseed cake & meal	Fish cake & meal	Wheat millfeeds	Rice millfeeds	Gluten feed & meal	Alfalfa meal	Distillers' dried grains	Brewers' dried grains	Dried & molasses beet pulp
1948**	2,416.3	4,329.1	698.6	93.7	114.9	7,642.9	173.9	4,799.2	196.2	848.3	957.0	313.9	232.4	....
1947	2,615.4	3,833.6	629.0	157.3	109.5	6,754.4	166.6	5,426.0	177.0	700.1	1,146.6	311.1	233.1	112.0
1946	1,626.3	4,096.4	374.1	113.0	194.2	6,106.9	143.3	5,009.8	108.1	867.0	1,012.4	411.3	154.3	266.0
1945	1,628.8	3,437.2	802.4	88.1	67.8	5,187.2	167.4	4,637.2	104.8	776.4	1,161.3	327.6	111.8	218.0
1944	1,926.3	3,666.1	648.4	93.2	62.3	6,166.7	204.8	5,924.8	140.8	883.8	936.3	675.2	217.4	176.8
1943	1,740.6	3,442.0	887.8	108.7	32.5	6,222.6	186.3	5,489.2	138.8	942.1	772.9	443.9	236.7	181.0
1942	2,014.8	3,300.2	797.6	103.4	33.7	6,149.5	294.8	5,313.8	146.7	837.3	678.8	366.0	233.4	268.4
1941	1,781.7	1,844.8	902.2	57.3	48.1	4,644.2	184.2	4,432.9	124.6	864.6	390.9	345.4	168.7	302.8
1940	1,988.3	1,343.6	744.7	133.5	88.6	4,690.7	226.9	4,371.8	114.9	758.8	470.0	266.5	117.3	303.4
1939	1,778.8	1,348.8	638.9	28.1	96.3	3,782.2	180.7	4,348.1	118.8	616.4	436.0	183.9	104.0	375.3
1938	1,965.8	1,064.4	481.4	65.7	74.8	3,658.5	194.8	4,545.8	104.3	569.9	436.8	148.1	104.1	334.0
1937	2,759.1	724.1	412.8	48.2	77.7	4,021.1	175.8	4,488.6	124.3	546.2	376.0	168.6	108.8	317.8
1936	2,165.7	495.8	506.1	37.8	83.6	3,348.2	206.4	4,419.8	108.0	616.3	369.8	198.4	116.2	238.0
1935	1,791.2	613.1	458.9	42.9	78.4	2,988.6	200.2	4,024.6	89.5	568.5	264.8	160.3	98.9	188.6
1934	1,608.6	126.4	397.6	43.8	58.5	2,311.1	176.0	4,132.9	89.3	441.6	304.8	....	....	231.8
1933	1,834.3	73.8	272.2	19.2	89.2	2,362.8	168.6	4,173.9	162.6	376.7	235.9	....	....	275.9
1932	2,104.9	64.3	359.2	14.9	67.7	2,606.7	108.7	4,268.5	....	499.5	193.9	....	....	260.4
1931	1,499.2	114.7	361.8	11.4	78.8	2,088.8	64.2	4,875.7	....	516.9	178.4	....	....	174.0
1930	1,643.8	98.8	338.8	13.4	88.6	2,794.1	80.8	4,743.8	....	541.1	248.3	....	....	218.0
1929	2,288.9	40.7	588.9	38.8	93.2	3,015.8	131.2	4,902.8	....	687.4	274.7	....	....	169.9
1928	2,332.6	21.1	787.2	13.2	94.4	3,227.3	*119.6	4,867.9	....	792.1	330.7	....	....	138.6
1927	1,981.8	10.7	725.2	13.3	79.3	2,843.2	*84.3	4,894.9	....	785.6	374.2	....	....	166.0
1926	2,923.0	8.2	726.6	7.7	78.2	3,737.8	*71.9	4,782.7	....	844.8	....	....	....	122.0
1925	2,584.3	5.5	723.9	18.7	60.1	3,373.6	*66.4	4,689.8	....	836.7	....	....	....	....
1924	2,233.6	7.4	748.1	14.2	46.9	3,081.3	*78.6	4,781.5	....	589.6	....	....	....	....
1923	1,551.4	2.4	645.2	3.9	54.1	2,257.0	*25.8	5,190.3	....	554.6	....	....	....	....
1922	1,422.7	3.8	684.2	8.9	27.3	2,124.9	*49.8	5,115.0	....	486.1	....	....	....	....
1921	1,347.7	1.3	415.2	23.3	45.5	1,826.9	*98.4	4,727.0	....	497.3	....	....	....	....
1920	1,691.0	....	448.4	23.1	26.9	2,389.4	*82.5	....	....	349.2	....	....	....	....
1919	1,776.2	....	487.8	7.3	41.2	2,311.5	....	....	....	504.7	....	....	....	....

*Calendar year following. **Preliminary. †Partly estimated.

percentage of crude fiber and names of ingredients. Word "manufacturer" is understood to be party registering feed for sale. Goods sold in bulk must be registered and a sufficient amount of state chemist labels furnished to cover amount so sold. Administrative officer: State Chemist, Purdue University Agricultural Experiment Station, La Fayette.

IOWA

Before any formula feed is offered or exposed for sale or sold an annual registration fee of 10¢ per brand must be paid to the department. All formula feeds and feed ingredients including poultry shells or poultry limestone for feeding domestic animals and poultry require registration except hay, straw, whole seeds, unmixed meals made from the entire grains of wheat, rye, barley, oats, Indian corn, buckwheat and broom corn; flours fit for human consumption. Unadulterated wheat, rye and buckwheat bran, shorts or middlings of Iowa manufacture require registration but not inspection fee. Dealers to furnish sample upon request accompanied by affidavit that it is a fair average sample of materials it represents. Label, either on tag or printed on package, must state net weight of contents; name, brand or trademark; name and principal address of manufacturer or dealer; minimum percentage of crude protein, crude fat and maximum percentage of crude fiber, names of each ingredient; minimum percentage of phosphorus (P), iodine (I) and the maximum percentage of calcium (Ca) and salt (NaCl), in mineral feeds and in mixed feeds containing more than 5% mineral ingredients. Statement must be filed on or before Jan. 15 and July 15 which sets forth the number of net tons sold or distributed in state during six preceding calendar months; and upon such statement pay to the department 10¢ for each such ton sold in the state during that period. Administrative officer: Secretary of Agriculture, Des Moines.

KANSAS

Registration is required for each brand and is permanent; no fees. All feedingstuffs must be registered; limestone and shell products when used for feeding livestock and poultry, except whole seeds or grains, unmixed meals made directly from and consisting of entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo, whole hays, straws, corn stover, and cottonseed hulls when unmixed with other materials, all other materials consisting of 15% or more of water. Inspection fee is 8¢ per ton; fee may be paid by tag or stamp on each package, or on Jan. 1 and July 1 if a permit to do so is obtained. Label must state net weight of contents; name of feedingstuff; name and principal address of manufacturer and specific name of each ingredient. In addition, organic feeds must show: minimum percentage of crude protein and crude fat, maximum percentage of crude fiber; inorganic feeds must show minimum percentage of calcium, phosphorus and iodine and maximum percentage of salt. Mineralized feeds must show minimum percentage of crude protein, crude fat, calcium, phosphorus and iodine and maximum percentage of crude fiber and salt. Deposit of samples is not necessary unless requested. Administrative officer: Secretary, State Board of Agriculture, Topeka.

KENTUCKY

Inspection fee is 7½¢ ton. Registration is permanent unless called for by the department at beginning of some calendar year; no fee. Registration is required for linseed meals, corn and corn cob meals, coconut meals, gluten feeds, gluten meals, germ feeds, corn feeds, starch feeds, sugar feeds, dried brewers' grains, malt sprouts, dried distillers' grains, dried beet refuse, hominy feeds, cerealine feeds, rice meals, rice bran, rice polish, peanut meals, oat feeds, corn and oat feeds, corn bran, wheat bran, wheat middlings, wheat shorts and other mill products, ground beef or fish scraps, mixed feeds, clover meal, alfalfa meal and feeds, pea vine meals, cottonseed meal, velvet bean meal, feeds and meals mixed or unmixed made from seeds or grains, and all other materials of similar nature used for food for domestic animals, condimental feeds, poultry feed, stock feeds, patented, proprietary or trade and market stock and poultry feeds. Deposit of samples is not required. Label must state net weight of contents, name and address of manufacturer, name, brand, or trademark, minimum percentages of protein and fat and maximum percentage of crude fiber, the specific name of each ingredient, and kind and amount of adulterants. Standards have been made for many by-product feeds, including wheat feeds, and special purpose mixed feeds. Weight standards: less than 17, 24, 100, 110 and 200 lb. Administrative officer: Director, Agricultural Experiment Station, Lexington.

LOUISIANA

Before any feed may be sold or offered for sale the guarantor must file the following information with the commissioner for each brand of feed to be sold in the state: net weight of contents of package, brand, name and address of guarantor, minimum percentage by weight of crude protein and crude fat, maximum percentage by weight of crude fiber, specific name of each ingredient used in manufacture of the feed, and a statement of guaranty as "shall be specified by ruling of the commissioner in case feeds claim dietary factors in forms not expressible by the foregoing or which are not adequately described thereby." Every lot or package of feed sold must carry a readily visible tag or label stating in "plain English" same information furnished to commissioner on registration. All feedingstuffs used for feeding livestock and poultry must be registered; except whole unmixed grains or seeds, whole hays, straw, chaff and hulls from grains or seeds, corn stover unmixed with other materials and other materials containing more than 60% water. Cottonseed meal, soybean meal or peanut meal sold or offered for sale for commercial feed must contain a minimum of 41% protein. Weight standards: All feeds except poultry feeds 100 lb. net per bag; poultry feeds 10, 25, 50 and 100 lb. net per package. Inspection fee is 25¢ per ton; payments are made on the basis of tonnage reports. Tonnage reports and inspection fees are due and payable Dec. 1, March 1, June 1 and Sept. 1. Administrative officer: Commissioner of Agriculture and Immigration, Box 951, Baton Rouge.

MAINE

No inspection fee is required. Registration fee is $10 per year for each brand annually by Jan. 1 or before offered for sale. Free registration for second year if sales are no more than 10 tons for year registered. All materials used for feeding livestock and poultry are required to be registered except: hays and straws, whole seeds and unmixed meals made directly from entire grains of wheat, rye, barley, oats, corn, buckwheat, flaxseed and broom corn. Label, either on tag or printed on package, must state net weight, name, brand or trademark, minimum percentage of crude protein, crude fat and maximum percentage of crude fiber; name and principal address of manufacturer or shipper; name of ingredients; name of any artificial coloring matter used. Deposit of samples is not necessary unless requested. Administrative officer: Commissioner of Agriculture, Augusta.

MARYLAND

Registration is annual by Jan. 1, or before goods are offered for sale; fee $15 per brand except that no fee is required on pure by-product millfeeds, pure corn and oat chop, pure corn bran and pure corn meal. All feedingstuffs used for feeding livestock and poultry are required to be registered except: whole seeds or grains, unmixed meals made directly from and consisting of the entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir, and milo; whole unmixed hays, straws, cottonseed hulls, corn stover and silage. No inspection fee. Label, either in form of printing on package or on tag attached to package, must state net weight of contents; name, brand or trademark; name and principal address of manufacturer or dealer; minimum percentage of crude protein and crude fat; maximum percentage of

Wholesale Feed Prices 1933-34 to Date by Months

Note: Base period 1935-1940=100. **Source: USDA**

Season	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Aver.
1949-50	[illegible]	[illegible]	[illegible]	[illegible]									
1948-49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1947-48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1946-47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1945-46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1944-45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1943-44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1942-43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1941-42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940-41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1939-40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1938-39	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1937-38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1936-37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1935-36	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1934-35	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1933-34	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Compiled by Market News and Services Division, Grain Branch, Production and Marketing Administration.

crude fiber; specific name of each ingredient. Deposit of samples is not necessary unless requested. Administrative officer: State Chemist, Maryland Inspection and Regulatory Service, College Park.

MASSACHUSETTS

Annual registration is required by calendar years or before goods are offered for sale; fee $20 for each brand. All materials for feeding livestock and poultry containing not more than 15% water require registration, except whole seeds or grains, unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo, whole hays, whole straws, unground cottonseed hulls, and unground corn stover, when unmixed with other materials. Label, either on tag or printed on each package must state net weight of contents; name, brand or trademark; name and principal address of manufacturer or dealer; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; specific name of each ingredient. If the tag or label contains any claim of one or more dietary factors other than those specified in the act, such tag or label must bear a legible and plainly printed statement in the English language guaranteeing each claim. Deposit of samples is not required. Administrative officer: Director, Massachusetts Agricultural Experiment Station, Amherst.

MICHIGAN

Annual registration is required by Jan. 1, or before goods are offered for sale; fee is $20 per brand for each "calendar year or portion thereof" for wholesale manufacturer; $10 per brand sold by retail manufacturers direct to consumer. Registration is required for all simple mixed, prepared, milled, compounded, processed or blended products together with all condimental and patented proprietary feeds used for feeding animals other than man, except unmixed whole seeds or grains, unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats; cracked or rolled corn, screened or unscreened, wheat and oats; whole hays, straws, ensilage and corn stover when unmixed with other materials; liquid byproducts from milk returned to farmers from cheese factories, skimming stations, creameries or other places where milk is [illegible] and the byproducts distributed. No stamps required. Each package must be labeled, either on forms of printing on package or tag attached, showing net weight; name, brand or trademark; name of actual manufacturer and place where manufactured or name and principal address of person responsible for placing commodity on market; minimum percentage crude protein; minimum percentage crude fat, except in case of meat and fish byproducts, when actual percentage must be declared allowing not more than 1% variation; maximum percentage crude fiber; specific name of each ingredient used in feed manufacture; percentage of each ingredient present in amount of less than 5%; in feeding molasses, minimum percentage of sugar and maximum percentage of ash; in semi-solid buttermilk, minimum percentage of total solids and milk fat, maximum percentage of ash and water; in wet brewers' and distillers' grains, in addition to protein, fat and fiber, maximum percentage of water; in mineral feeds, mixed or unmixed, minimum percentage of calcium, phosphorus, iodine and maximum percentage of salt. If no nutritional properties other than of a mineral nature is claimed, percentages of crude protein, crude fat and crude fiber may be omitted. Deposit of samples is not necessary unless requested. Administrative officer: Director of Agriculture, Lansing, Michigan.

MINNESOTA

Registration is permanent with no fee. On or before Jan. 31 of each year licensee must file sworn statement showing amounts of each brand of feed he has sold or offered for sale in the state during the previous year ending Dec. 31. Inspection fee is 15¢ per ton if paid (by permit) quarterly on sworn statement of sales. Otherwise, official tags or stamps must be used and are [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] ping case containing small packages (less than 10 lb. each) may be regarded as unit for official tags or stamps. Registration is required for linseed meals, cocoanut meals, gluten feeds, gluten meals, germ feeds, corn feed, [illegible] feeds, starch feeds, sugar feeds, dried brewers' grains, malt sprouts, dried distillers' grains, dried beet refuse, hominy feeds, [illegible] feeds, rice meals, rice bran, rice polish, peanut meals, oat feeds, corn and oat feeds, corn bran, wheat bran, wheat middlings, wheat shorts, all other mill byproducts not specifically excluded, ground beef or fish scraps, dried blood, blood meals, bone meals, tankage, meat meals, slaughter house waste products, mixed feeds, canned and dry dog feeds, clover meals, alfalfa meals and feeds, pea vine meal, cottonseed meal, sunflower oil cake, velvet bean meal or any other leguminous meal, mixed feeds and mixed meals made from seeds or grain and all materials of similar nature used for food for domestic animals, condimental feeds, poultry feed, stock feeds, patented proprietary or trade marked stock and poultry feeds, mineral mixtures, iodized salts, dried or condensed buttermilks and skim milks, cod liver oils, vitamin D carriers and other vitamin supplements, except straws, hay, whole seeds, unmixed meals made directly from the entire grains of wheat, rye, barley, oats, Indian corn, buckwheat and broom corn, wheat flours or other cereal flours. Label, either in the form of printing on package or tag attached to package, must state net weight, name, brand or trademark, name of manufacturer, location of principal office of manufacturer; minimum percentage of crude protein and crude fat, maximum percentage of crude fiber and names of ingredients. Special guaranties are required for mineral feeds, salts, vitamin D carriers and other vitamin supplements. Deposit of samples is not required. Administrative officer: Commissioner of Agriculture, Dairy and Food, St. Paul, Minn.

MISSISSIPPI

Registration of brands is required annually on or before Jan. 1, or before offered for sale; fee $1 for each brand. Registrations are to be filed with commissioner at Jackson, and State Chemist, State College, Miss. No fee for registration with state chemist. Inspection fee, 25¢ ton. In lieu of affixing stamps, permit may be issued to file quarterly reports showing the total tonnage for sales for the preceding three months. Payment of inspection fee is to be enclosed with each report. Reports due on Jan. 1, April 1, July 1 and Oct. 1. Report must be filed and inspection fee paid by the 15th day of the month following due date. Registration is required of cottonseed meal, so-called mineral feeds and all other feedingstuffs used for feeding livestock and poultry, except whole unmixed seeds or grains, cottonseed hulls, unmixed meals made from and consisting of entire grains of corn (but not corn chops), wheat, barley, rye, oats, buckwheat, flaxseed, kafir and milo, whole hays, straws when unmixed with other materials, and all other materials when containing 25% or more of water. Each package must be labeled to show net weight of contents; name, brand or trademark; name and principal address of manufacturer or guarantor; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; specific name of each ingredient. Commissioner is required by law to collect $1 per ton on all commercial feed found to be deficient in protein and fat, or excessive in fiber. The guarantor is allowed a tolerance of 4% in the sum of the protein fat before sample is declared deficient. Administrative officer: Commissioner of Agriculture and Commerce, Jackson, Miss.

MISSOURI

Registration is required annually by Jan. 1 for all feedingstuffs for livestock and poultry, including dog foods, except whole seeds or grains, unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo, whole hays, straws, cottonseed hulls and corn stover, pure corn chops and pure ground ear corn, when not mixed with other materials and other materials containing 60% or more of water. Registration fee is $1 for each brand for each calendar year or portion thereof. An inspection fee of 1¢ per ton is required, payable semiannually (no tax tags or stamps). Every package must be labeled showing (a) net weight of the contents of the package, lot or parcel; (b) name, brand, or trademark; (c) name and principal address of manufacturer or person responsible for placing commodity on market; (d) minimum percentage of crude protein; (e) minimum percentage of crude fat; (f) maximum percentage of crude fiber; (g) minimum percentage of nitrogen free extract; (h) specific (common) name of each ingredient used in its manufacture. Information (a) to (g) must be furnished on card or cards to purchaser who buys in bulk. Weight standards: 5, 10, 25, 50, 100, 150 and 200 lb. net. Information may appear either in the form of printing on package or tag attached to package. Materials prohibited are: rice hulls, chaff, peanut hulls, dirt, ground or crushed corn cobs, sawdust, weed seeds the viability of which has not been destroyed except in poultry feeds, more than 3% of mineral substances except in mineral feeds, other materials of little or no feeding value, substances injurious to the health of domestic animals or poultry. Deposit of samples is not necessary unless requested. Administrative officer: State Department of Agriculture, Jefferson City, Mo.

MONTANA

Registration is required annually by Jan. 1 or before goods are offered for

Corn, Oats, Barley and Grain Sorghum Prices

Note: October, 1935, to September 1940=100 **Source USDA**

Season	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Aver.
1949-50	[illegible]	[illegible]	[illegible]	[illegible]									
1948-49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1947-48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1946-47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1945-46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1944-45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1943-44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1942-43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1941-42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1940-41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1939-40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1938-39	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1937-38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1936-37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1935-36	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Compiled by Market News and Services Division, Grain Branch, Production and Marketing Administration.

sale; fee $1 per brand. All materials for feeding animals or poultry require registration except unmixed whole seeds or grains, mixed or unmixed meals made directly from and consisting of entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo; feeds from oil seeds and other seeds or grains; whole, chopped or ground hays, straws, corn stover and silage, when unmixed with other materials; feeds sold in small quantities and used only for household pets except dogs; wet beet pulp, barley sprout and whole screenings. Any brand of commercial feed offered for sale or sold must have printed on or attached by tag a label stating the net weight; brand or trade name; name and principal address of manufacturer or person responsible for placing commodity on the market; minimum percentage of crude protein; minimum percentage of crude fat; maximum percentage of crude fiber and names of each ingredient used in its manufacture. In the case of mixed feeds containing more than a total of 10% of one or more mineral ingredients, or other unmixed materials used as mineral supplements, and in the case of mineral feeds mixed or unmixed, which are manufactured, represented and sold for primary purpose of supplying mineral deficiencies in rations for animals or poultry, and containing mineral ingredients generally regarded as dietary factors essential for normal nutrition, the minimum percentage of calcium (Ca), phosphorus (P), or iodine (I) and the maximum percentage of salt (NaCl), if the same be present. Provided that if no nutritional properties other than those of a mineral nature be claimed for a mineral feed product, the percentage of crude protein, crude fat and crude fiber may be omitted. In the case of feeds containing for their principal claim dietary factors in forms not expressible by the foregoing, such claims must be expressed in a manner designated and in effect at the time by resolutions adopted by the Association of American Feed Control Officials. In all cases the true percentage of salt must be indicated. Deposit of samples is not required except on request accompanied by affidavit that it is a fair average sample of material it represents. Administrative officer: Commissioner of Agriculture, Labor and Industry, Helena.

NEBRASKA

Annual registration is required before feed is offered for sale; fee $1 per brand. Inspection fee is 10¢ per ton payable Jan. 15, May 15 and Sept. 15. Deposit of samples is required together with affidavit that it is truly representative of material. All feedingstuffs used for feeding livestock and poultry require registration except whole seeds or grains, whole unground hays, straws, cottonseed hulls and corn stover, when unmixed with other materials. Unmixed meals or chops made from whole grain to which nothing has been added or abstracted, when exchanged for whole grain of a like kind when manufactured, sold and delivered on premises of manufacturer, direct to the consumer. Unadulterated wheat, rye and buckwheat bran, or shorts require registration but no inspection fee. Each package must be labeled, either in form of printing on package or tag attached to the package, showing net weight; name, brand or trademark; name and principal address of manufacturer; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; minimum percentage of nitrogen-free extract; specific name of each ingredient; maximum amount of each foreign mineral ingredient; kind and maximum percentage of weed seeds, peanut shells, corn cob meal, oat hulls, oat clippings, flax plant by-product, or other materials of a similar nature; amount of limestone or calcium product. Administrative officer: Director, Department of Agriculture and Inspection, Lincoln.

NEVADA

Although no specific law exists, products bearing a guaranteed analysis must comply with such analysis or be in violation of the misbranding provisions of the State and Food Drug Law which requires that each package be labeled with a statement of net weight and name and place of business of manufacturer, packer or distributor. No registration is required. Administrative officer: Public Service Department, Division of Food & Drug Control, University of Nevada, Reno.

NEW HAMPSHIRE

Annual registration is required during December or before goods are offered for sale; fee $15 for each brand for each calendar year or portion thereof. All feedingstuffs used for feeding wild animals and birds kept in captivity, domestic animals and poultry must be registered except hay, straw, whole seed, unmixed meals made directly from the entire grains of wheat, rye, barley, oats, Indian corn, broom corn, buckwheat, and mixed grains, ingredients of which may be readily determined. No inspection fee or tags. Label, either in the form of printing on packages or on tag attached to packages, must state net weight of package; name, brand or trademark; name and address of manufacturer or shipper; place of manufacture; minimum percentages of crude protein and crude fat, and maximum percentage of crude fiber; names of ingredients (in bold type) if a compounded feed. Deposit of samples is not necessary unless requested. Administrative officer: Commissioner of Agriculture, Concord.

NEW JERSEY

Registration is required annually Jan. 1 or before offered for sale; fee, 10¢ per brand. On July 1 and Jan. 1 all firms or persons engaged in manufacture and sale of concentrated feedingstuffs must file with the administrative officer a certified statement, giving number of tons sold during preceding six months and pay inspection fee of 8¢ per ton, based upon said statement. Blanks for preparing such statement will be furnished by the administrative officer. All feeds must be registered, except whole seeds or grain sold as such and unmixed meals made directly from and composed of entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo, whole hays, straws, cottonseed hulls, and corn stover when unmixed with other materials. Label, either in form of printing on package or tag attached to package, must show net weight; name, brand or trademark; manufacturer's or dealer's name and address, minimum percentage of crude protein and crude fat, maximum percentage of crude fiber, names of ingredients. A tag or tags must not be attached to bags by means of wire or with metal fasteners. Deposit of samples is not necessary unless requested. Administrative officer: State Chemist, New Jersey Agricultural Experiment Station, New Brunswick.

NEW MEXICO

Registration is permanent; no fee. Inspection fee 11¢ per ton. All feeds intended for feeding livestock and poultry must be registered, except whole seeds or grains, whole hays, straws, cottonseed hulls, corn stover when unmixed with other materials; all other materials containing 60% or more of water. Label, either on tag or printed on package, must show net weight, name, brand or trademark; name and address of manufacturer or person responsible for placing commodity on market; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; percentage of nitrogen-free extract; specific names of ingredients. Registration sample (1 lb.) is required. Sufficient tax tags or stamps must be delivered to cover bulk sales and label statement. Administrative officer: Deputy in Charge, Feed and Fertilizer Control Office, State College.

NEW YORK

Registration is required annually on or before Jan. 1 or before goods are offered for sale. License fee is $15 for each brand for wholesalers (permits unlimited sales at wholesale); $15 for each brand for retailers (permits sales at retail to ultimate consumer at only one place in state, which place being designated on license). Registration is required for linseed meal, cottonseed meals, pea meals, bean meals, peanut meals, cocoanut meals, gluten meals, velvet bean meals, soybean meals, dried yeast grains, dried vinegar grains, corn germ meal, feeding molasses, gluten feeds, cottonseed feeds, maize feeds, velvet bean feeds, peanut feeds, dried distillers' grains, dried brewers' grains, malt sprouts, except as hereinafter provided, hominy feeds, rice meals, corn and oat chops, corn feed meal, corn bran, corn and cob meal, wheat bran, wheat middlings, wheat feed, rye feed, rye middlings, buckwheat middlings and buckwheat feed, ground beef or fish scraps, meat meals, meat and bone meals mixed, dried blood, milk by-product, mixed feeds, compounded feeds, condimental stock and poultry feeds, proprietary or trademark stock and poultry feeds, and all other materials of a similar nature. Those not requiring registration are materials defined as roughages, whole seeds, pure whole grains ground together, unmixed meals made directly from the entire grains of wheat, rye, barley, oats, corn, buckwheat and broom corn, malt sprouts when sold as such by the maltster at retail, ground or cracked bone not mixed with any other substance, poultry feeds consisting of whole or whole and cracked grains mixed together, with or without grit, oyster shell or charcoal, when all the ingredients may be identified with the naked eye. Materials prohibited in mixed feeds are: peanut shells, peanut hulls, rice hulls, rice chaff, rice straw, humus, peat, sphagnum moss, coffee hulls, chaff, sawdust, sand, ground corn cobs, except in corn and cob meal unmixed with other materials, ground cocoanut shells, any substance injurious to health of animals or having no feeding value, poultry feeds containing in excess of 4% in the aggregate of gravel, grit, oyster shells and charcoal or more than 5% in the aggregate of any two or more of them, feedingstuffs containing cockle seed, mustard seed, or other noxious or poisonous weed seed, the viability of which has not been destroyed. (Authority granted to permit a uniform and reasonable tolerance in the amount of such seeds). Tags are not necessary on light colored packages upon which required statement is plainly printed. If tags are used type must be not smaller than 8-point. Each package must be labeled showing net weight of contents except in case of malt sprouts sold in packages containing uneven weights; name, brand or trademark; name and principal address of manufacturer or person responsible for placing commodity on market; composition expressed in following terms: (a) minimum percentage of crude protein, (b) minimum percentage of crude fat, (c) maximum percentage of crude fiber, provided that the percentage of crude fiber may be omitted if it does not exceed 1%, (d) if a compounded feed, name of each ingredient contained therein, but if any ingredient classified under concentrated commercial feedingstuffs be present in a smaller amount than 1% of the whole, the minimum percentage or weight of such ingredient must

U.S. Stocks of Principal Feed Grains

Note: In bushels, 000's omitted. **Source: USDA**

Grain and position—	Jan. 1, 1948	Jan. 1, 1949	Oct. 1, 1949	Jan. 1, 1950
Corn—				
On farms*	1,609,293	2,547,912	769,445	1,681,279
Terminals†	13,218	28,338	9,614	41,583
Commodity Credit Corp.‡	......	......	67,640	278,184
Int. mills, elevators & warehouses*¶	36,093	63,088	39,629	86,543
Total	1,658,604	2,641,338	886,317	2,039,664
Oats—				
On farms*	713,003	930,177	1,063,200	819,701
Terminals†	14,037	11,934	28,700	19,028
Int. mills, elevators & warehouses*¶	32,651	34,733	69,333	37,306
Total	770,091	974,844	1,126,335	876,036
Barley—				
On farms*	117,306	166,367	149,973	107,033
Terminals†	28,541	16,627	33,978	32,030
Commodity Credit Corp.‡	......	......	2,601	2,041
Int. mills, elevators & warehouses*¶	41,982	58,031	65,658	52,069
Total	187,843	239,045	251,200	194,073
Sorghum grain—				
On farms*	29,097	33,059	6,031	59,967
Terminals†	6,085	16,367	6,021	16,507
Int. mills, elevators & warehouses*¶	6,161	17,669	2,975	35,051
Total	41,343	66,294	15,027	111,525

*Estimates of Crop Reporting Board. †Commercial stocks reported by Grain Branch, PMA, at 41 terminal cities. ‡Owned by CCC and stored in bins or other storages owned or controlled by CCC. ¶All off-farm storages not otherwise designated. §In Canadian elevators.

Range of Millfeed Prices at Principal Cities in U.S.

Note: High and low millfeed prices by months, basis carload lots, prompt delivery, per ton, in 100-lb. sacks. **Source: The Northwestern Miller**

1946—	Chicago Spring Bran	Chicago Spring Std. middls.	Minneapolis Spring Bran	Minneapolis Spring Std. middls.	Kansas City Hard winter Bran	Kansas City Hard winter Flour middls.
January	$41.00@$44.00	$43.00@$45.00	$41.00@$43.00	$43.00@$45.00	$37.00@$38.00	$47.50@$50.50
February	41.00@41.00	43.00@43.50	41.00@48.00	43.00@47.00	38.75@42.00	43.00@48.50
March	41.00@41.75	43.00@47.50	48.00@51.00	50.00@53.00	41.00@43.50	48.00@50.50
April	48.00@48.00	50.00@48.50	51.00@53.00	57.00@54.00	47.00@50.00	50.00@51.00
May	51.50@54.00	54.00@61.50	56.00@58.00	55.00@58.50	48.50@52.00	47.50@52.00
June	51.00@48.75	51.50@49.00	42.50@48.00	47.00@48.50	38.00@41.50	48.00@52.50
July	41.50@48.50	49.00@54.50	41.00@47.00	45.00@49.00	38.00@44.50	46.00@48.00
August	41.50@48.50	45.50@50.00	38.50@42.50	41.00@45.00	35.00@40.00	42.00@47.00
September	41.50@48.50	44.50@53.50	38.50@40.50	43.00@44.50	38.00@40.00	42.00@52.00
October	41.50@44.00	44.50@48.50	38.50@41.00	43.00@46.00	38.00@40.00	42.00@46.75
November	43.00@47.00	46.00@49.00	40.00@43.00	46.00@48.00	40.00@42.00	42.75@44.00
December	46.50@48.00	47.00@49.50	43.50@45.50	43.00@47.50	40.25@44.00	44.50@46.75

1945—	Chicago Spring Bran	Chicago Spring Std. middls.	Minneapolis Spring Bran	Minneapolis Spring Std. middls.	Kansas City Hard winter Bran	Kansas City Hard winter Flour middls.
January	$76.50@$80.50	$81.50@$85.00	$75.00@$80.50	$78.00@$80.00	$72.00@$80.00	$76.00@$80.50
February	80.50@78.00	80.00@80.00	80.50@77.00	80.00@81.00	80.00@72.00	80.00@78.00
March	66.00@72.00	66.00@81.00	61.00@71.00	61.00@78.00	68.00@71.00	71.00@77.00
April	71.50@63.00	76.00@63.00	69.50@60.00	74.00@63.00	67.00@70.50	69.00@60.50
May	71.00@76.00	76.00@83.50	69.50@71.00	73.00@78.00	65.00@69.00	71.50@78.50
June	68.50@68.00	81.00@85.00	63.00@66.50	78.00@78.50	58.00@63.50	76.00@78.00
July	48.50@61.50	68.50@74.00	46.00@57.00	53.00@76.00	43.50@54.50	53.00@66.50
August	61.75@61.25	66.00@69.50	51.00@60.50	65.00@65.50	56.00@61.00	61.50@60.50
September	63.50@65.75	61.00@66.50	61.50@64.00	67.00@64.00	57.00@60.00	49.50@60.50
October	61.50@58.00	68.00@61.00	59.50@57.00	66.00@61.00	58.00@61.50	60.50@61.50
November	68.50@64.00	68.50@66.00	60.00@61.00	66.50@66.00	60.00@61.50	60.50@61.50
December	66.00@64.50	61.00@61.50	67.50@61.50	65.00@62.50	63.00@69.50	62.75@61.00

1947—	Chicago Spring Bran	Chicago Spring Std. middls.	Minneapolis Spring Bran	Minneapolis Spring Std. middls.	Kansas City Hard winter Bran	Kansas City Hard winter Flour middls.
January	$56.50@$58.50	$58.50@$64.00	$57.00@$58.00	$58.50@$60.50	$53.75@$56.50	$57.75@$62.50
February	58.50@62.50	64.00@68.00	57.00@62.50	60.00@63.50	56.00@58.00	60.00@67.50
March	66.00@67.00	66.00@68.00	66.00@62.50	68.00@64.00	66.00@62.00	66.00@64.00
April	58.00@62.50	59.50@63.50	66.00@60.00	65.00@62.50	62.50@58.50	66.00@67.50
May	58.50@72.00	63.00@76.00	66.00@65.50	58.50@67.00	65.00@68.50	57.00@68.50
June	61.00@61.00	66.00@74.00	57.00@61.00	63.50@63.00	52.50@64.00	64.50@73.00
July	65.50@72.50	70.50@77.00	61.00@68.50	66.00@76.00	66.00@64.50	64.50@76.00
August	56.00@71.00	63.00@78.50	53.00@63.00	56.00@66.00	53.50@63.00	53.00@74.50
September	56.50@66.00	63.00@77.00	57.50@64.00	55.00@76.00	56.00@61.00	60.00@76.50
October	63.00@66.50	76.50@74.00	60.00@63.00	76.00@73.00	57.00@61.00	73.00@78.00
November	63.00@76.50	69.50@74.50	60.00@67.00	67.00@71.00	58.50@60.00	61.00@72.50
December	66.50@78.50	73.00@83.00	67.00@73.00	70.00@78.50	64.00@71.00	73.50@80.00

1946—	St. Louis Soft winter Bran	St. Louis Soft winter Flour middls.	Buffalo Spring Bran	Buffalo Spring Std. middls.
January	$34.50@35.00	$43.00@44.75	$33.00@37.50	$34.00@37.50
February	41.75@40.25	45.00@41.75	40.00@44.50	43.00@43.00
March	46.75@47.75	47.75@46.25	41.50@46.50	42.00@46.00
April	47.75@44.75	47.75@46.75	41.50@48.50	50.00@48.50
May	42.75@46.75	44.75@47.25	44.50@42.00	49.00@48.00
June	43.75@44.75	49.75@46.75	49.00@44.00	42.00@43.00
July	42.75@46.75	47.75@42.25	48.00@51.50	51.00@49.00
August	44.75@46.75	45.75@50.25	46.00@45.50	47.00@52.00
September	46.25@45.00	48.25@47.00	45.50@46.50	46.50@46.00
October	46.50@45.00	47.50@45.00	44.50@47.00	45.50@43.00
November	41.25@44.25	46.00@48.25	45.00@45.00	45.50@42.00
December	44.50@47.50	45.50@50.00	46.50@44.00	48.50@43.25

1945—	St. Louis Soft winter Bran	St. Louis Soft winter Flour middls.	Buffalo Spring Bran	Buffalo Spring Std. middls.
January	$34.50@35.00	$40.50@41.50	$39.00@42.00	$42.00@42.00
February	35.50@42.50	40.00@42.00	42.00@40.00	40.00@40.00
March	47.50@71.00	44.00@42.50	44.00@77.00	43.00@44.00
April	71.50@41.25	73.50@43.00	74.00@44.00	42.00@44.00
May	68.00@75.00	74.50@43.00	76.00@41.00	43.00@43.00
June	64.00@68.00	65.50@64.50	68.00@77.50	45.00@46.00
July	45.00@61.00	53.50@77.00	53.00@68.00	50.00@44.00
August	41.00@44.00	43.00@51.00	45.00@52.00	48.00@45.00
September	38.50@41.00	45.00@43.50	45.00@45.00	46.50@45.00
October	41.00@41.00	43.00@57.50	45.00@46.00	46.50@46.50
November	48.50@45.00	48.00@45.00	46.00@46.00	46.50@46.00
December	48.00@51.00	48.00@51.50	52.00@48.00	52.50@49.00

1947—	St. Louis Soft winter Bran	St. Louis Soft winter Flour middls.	Buffalo Spring Bran	Buffalo Spring Std. middls.
January	$36.50@38.50	$38.50@40.50	$40.00@42.00	$41.50@42.00
February	38.00@42.00	42.00@40.00	42.00@40.00	44.00@46.00
March	42.00@42.00	48.00@48.00	46.00@48.50	48.50@48.50
April	47.50@45.00	50.00@46.00	52.00@48.50	52.00@48.50
May	47.00@74.00	54.00@72.00	52.00@72.00	54.00@74.00
June	48.00@68.00	52.00@67.50	53.00@72.00	55.00@72.00
July	48.00@68.00	52.00@67.50	53.00@72.00	55.00@72.00
August	53.00@68.00	61.00@74.00	53.00@72.00	56.00@74.00
September	47.50@67.00	64.50@68.50	52.00@72.00	57.00@67.00
October	62.00@66.00	76.00@62.50	62.00@68.00	68.00@66.00
November	65.75@68.50	74.00@77.50	62.00@68.00	72.00@77.50
December	68.00@71.75	74.75@83.00	72.00@82.00	74.00@85.75

be given as part of the statement of terms provided (4) if artificially colored (name of material used for such purpose, (5) in the case of meat products containing more than 12% of ingredients phosphate, such "some" meat spread as a part of the brand name, or the presence of bone meal be otherwise plainly indicated, (6) in case of mixtures, minimum percentage of sugar, (7) in the case of compounded feeds containing roughage, percentage of total roughage when the total fiber content exceeds 15% with an allowance of 2% of the content for variation, (8) in case of mineral or inorganic compounds, mixed or nonmixed, such as calcium phosphate, calcium carbonate or any other materials of similar inorganic character, the minimum percentage of each ingredient which is present in amounts greater than 1% of the whole. Metal containers with sharp points must not be used to attach tags. Administration of Feed: Commissioner of Agriculture and Markets, Albany.

NORTH CAROLINA

All manufactured or mixed feeds including feeds supplement feeds (a product or preparation) are required to be registered before being offered for sale and annually thereafter, on or before Jan. 1. Fee is $1 per brand sold in packages greater than 5 lb., $15 per brand if sold in packages of 5 lb. or less. The tonnage report must be made monthly and inspection fee due and payable monthly on the 15th of each month. Inspection fee, 15c a ton on each brand sold in packages of more than 5 lb. Either tax tags or stamps will be supplied by department of agriculture. On each brands as are sold in packages of 5 lb. or less, there is no inspection tax. Each package must be labeled, either printed on bag or tag attached thereto, to show net weight of contents, name, brand or trademark, name and address of manufacturer, jobber or importer; names of ingredients; maximum percentage of crude fiber; minimum percentage of crude protein; carbohydrates, crude fat. Standard weight packages: 2 lb. or less, 10, 25, 50, 75, 100, 125, 150, 175 and 200 lb. Metal fasteners prohibited. Administrative officer: Commissioner of Agriculture, Raleigh.

NORTH DAKOTA

Registration is permanent and is required for all feedingstuffs used for feeding livestock and poultry except whole seeds and grains, unmixed meals made directly from and consisting of entire grains of corn, wheat, rye, barley, oats, buckwheat and broom corn, and whole hays, straws, silages and corn stover when unmixed with other materials. No registration fee; on feeds sold in cans or small packages of less than 10 lb., registration fee of $15 is optional in lieu of paying 10c per ton. Inspection fee which is payable Jan. 15 and July 15 on tonnage affidavit. Semi-annual tonnage affidavit is basis of inspection tax. Each package must bear tag or label showing net weight of contents; name, brand or trademark; name and principal address of manufacturer or importer; minimum percentage of crude fat and crude proteins, and maximum of crude fiber; names of ingredients; in case of mineral feeds and commercial feeds containing more than a total of 5% of one or more mineral ingredients used as mineral supplements, minimum percentages of phosphorus, calcium and iodine, omitting fat, protein and fiber; in case of vitamin supplements or carriers potency in terms of vitamin units per weight. Deposit of samples is not necessary unless requested. Administrative officer: State Food Commissioner and Chemist, Bismarck.

OHIO

Registration is required annually or before offered for sale; fee $1 per brand. Inspection fee, 10c per ton, payable semi-annually on sworn statement of tonnage. All feeds used for livestock, dog, fox, fish and poultry: linseed oil meal, linseed oil cake, cottonseed oil meal, cottonseed oil cake, pea meal, soybean oil meal, coconut meal, rice meal, rice bran, rice polish, peanut oil meal, bean meal, gluten meal, gluten feeds, distillers' and brewers' grains, dried distillers' grains, dried beet refuse, malt sprouts, yeast feeds, hominy feeds, cereal-ine feeds, oat feeds, mixed feeds, alfalfa meals, molasses feeds, sugar feeds, buckwheat bran, buckwheat hulls, buckwheat middlings, corn and corn cob meal, crushed ear corn, corn bran, corn siftings, wheat bran with or without screenings, wheat middlings with or without screenings, ground or unground mixed feeds made from seeds or grains or grain offal, clover meals, dried blood, blood meal, tankage, meat scraps, beef scraps, meat and bone meal, meat cracklings, raw or steamed bone meal, fish scraps, fish meal, dried buttermilk, condensed buttermilk, dried skim milk, condensed skim milk or other animal, marine or vegetable by-products. No registration is required for hay, straw, whole seeds, whole grains or unmixed meals made from corn, oats, wheat, rye, barley, buckwheat or other whole standard grains. Label, either in form of printing on package or tag attached thereto, must show net weight; name, brand or trademark, name and principal address of manufacturer or person responsible for placing the commodity on the market; minimum percentage of crude protein, minimum percentage of crude fat, maximum percentage of crude fiber, specific name of each ingredient. Special statement is necessary for condimental, mineral and vitamin carrying feeds containing inorganic ingredients. Administrative officer: Chief, Division of Plant Industry, Department of Agriculture, Columbus.

OKLAHOMA

Registration is required for each brand before offering for sale and is permanent unless cancelled, or fee. Inspection fee 10c per ton, payable quarterly on sworn statement of tonnage. Materials which require registration are wheat bran, wheat shorts, linseed meal, cottonseed meals, pea meals, peanut meals, gluten meals, gluten feeds, malme feeds, starch feeds, sugar beets, dried brewers' grains, malt sprouts, hominy feeds, cereal feeds, corn and oat chips, rice meals.

rice bran, rice polish, rice hulls, alfalfa meals, oat feeds, ground beef or mixed fish feeds, minerals and mineral mixtures, and all other materials of similar nature not specifically excluded. Registration is not required of hay and straw, whole seed or grains of wheat, barley, rye, oats, Indian corn, rice, buckwheat or broom corn or any other whole or unground grain or seed. Each bag or container of commercial feeds must have "plainly printed" statement on bag or on tag attached, to show net weight of contents; brand or trade name of feed; name and address of manufacturer or importer; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; names of ingredients. All mineral feeds mixed or unmixed, except salt, must have a plainly printed statement on the tag, label, or bag to show the same information required above, except the guaranteed analysis must be expressed as maximum percentage of calcium (Ca), minimum percentage of phosphorus (P), minimum percentage of iodine (I), and maximum percentage of salt (NaCl). Any commercial feed to which more than 1% minerals have been added must have a plainly printed statement on the tag, label or bag to show all the requirements mentioned above. All preparations which are sold or represented for the cure, mitigation or prevention of disease are classified as drugs, medicines or specifics and are not subject to registration under the Oklahoma Feed Law. However, when same is used in commercial feeds that may be potentially dangerous to the health of stock or poultry, full information to protect the purchaser must be given. Separate tags must be attached to show adequate directions for use and also adequate warnings. All labels or tags must be "clearly printed and distinct in type" so as to be easily read. The use of labels and tags printed with rubber stamps is prohibited. Deposit of samples is required, together with affidavit that it fairly represents the material. Administrative officer: State Board of Agriculture, Oklahoma City.

OREGON

Registration is required annually by Jan. 1 or before goods are offered for sale; fee of $10 for each brand if registered on or after July 1, fee $5 for balance of year. All materials intended for use in feeding or mixing for livestock and/or fowls, or represented by any seller or distributor as suitable for such purpose, except whole seeds, or grains; unmixed meals made directly from and consisting of the entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed and grain sorghums; unground hays and straws; unground and unmixed screenings, cottonseed hulls, corn stover, oat hulls; feed molasses when unmixed with other materials; all other materials containing 60% or more of water. Label, either in form of printing on package or tag attached, must state net weight; name, brand or trademark; name and address of manufacturer or dealer; minimum percentage of crude protein and fat; maximum percentage of crude fiber and ash (maximum of 11% on fiber except on single feedingstuffs containing more than 12% natural fiber); specific name of each ingredient; in the case of poultry feed, maximum percentage of grit and shell and other mineral matter. Deposit of samples is not necessary unless requested. Administrative officer: Division of Foods and Dairies, State Department of Agriculture, Salem.

PENNSYLVANIA

Registration fee is $5 for each new brand. Registration of old brands is based on number of tons sold during last preceding calendar year, as follows: 150 tons and less, $5; more than 150 tons and less than 300 tons, $10; more than 300 tons and less than 500 tons, $15; more than 500 tons, $25. If no sworn statement of tonnage sales is made by manufacturer, then brands can be registered at $25 each; no inspection fee. Pure wheat, rye and buckwheat by-products, pure corn meal made by grinding and bolting corn, and pure corn and oats chop can be registered annually at $1 per brand, no tonnage sales being required. Materials requiring registration are: cottonseed oil meals, cottonseed feeds, linseed meals, flaxseed oil meals, cocoanut oil meals, peanut oil meals, corn oil meals, corn gluten feeds, corn gluten meals, corn bran, maize feeds, starch feeds, barley middlings, barley feeds, pea meals, bean meals, sugar feeds, dried distillers' grains, dried brewers' grains, malt sprouts, dried malt grains, dried vinegar grains, wheat bran, wheat middlings, wheat mixed feeds, rye bran, rye middlings, rye mixed feeds, buckwheat brans, buckwheat middlings, buckwheat feeds, hominy feeds, cerealine feeds, maizeline feeds, rice meals, dried beet pulp, dried molasses beet pulp, feed molasses, molasses grains, molasses feeds, clover meal, alfalfa meal and feeds, semi-solid or dried buttermilk, also semi-solid or dried skimmed milk, ground beef scraps, ground fish scraps, oil meals, or residues from extracted seeds and grains, mixtures of whole grains and all other mixtures bearing distinctive brand or trade names, and all mixtures of similar nature used for feeding domestic animals including poultry; condimental stock and poultry foods and patented, proprietary or trademarked stock and poultry foods possessing nutritive value combined with medicinal properties, and all mixed feeds (other than pure grains, which are not sold as mixtures bearing distinctive names, but which are sold as pure grains). Materials not requiring registration are hays, straws and corn stover, ensilage, whole grains, unmixed meals made directly from entire grains of wheat, rye, barley, oats, Indian corn, ear corn, kafir corn, broom corn, sugar cane, sorghum, rice, buckwheat and flaxseed, not mixed with other substances, but sold separately as distinct articles of commerce, nor pure grains mixed together, nor being mixed with any other substance, nor having distinctive brand or trade names but sold as mixtures of pure whole grains. The use or addition to any feedingstuffs of oat hulls, oat feed, oatmeal by-product, clipped oat by-product, flax plant refuse, elevator chaff, cottonseed hulls, ground corn stalks, cocoa shells, cocoanut shells, is permitted and such feeds will not be considered as adulterated with these materials provided the maximum fiber shall not be found, upon analysis, to exceed 11% plus 10% tolerance, making a total of 12.1%. Label, either in form of printing on package or tag attached, must show net weight of contents; name, brand or trademark; name and address of manufacturer or importer; minimum percentage for crude protein and crude fat, and maximum percentage of crude fiber, minimum percentage of total sugar in case of feed molasses, minimum percentage of total solids in case of semi-solid buttermilk. Metal fasteners of all kinds prohibited. Administrative officer: Director, Bureau of Foods and Chemistry, Department of Agriculture, Harrisburg.

RHODE ISLAND

Registration is required annually for each brand; fee $10 per brand for each calendar year or portion thereof; no inspection fee. All feeds used for feeding animals and birds must be registered, except unmixed whole seeds or grains; unmixed meals made directly from and consisting of entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir, milo and other seeds or grains; whole hays, straws, cottonseed hulls, corn stover and silage, when unmixed; feed mixed according to formula furnished by consumer for his own use and not sold as commercial brand. Label, either in form of printing on package or tag attached to package, must show: net weight, name, brand or trademark, name and address of manufacturer or person placing commodity on market, minimum percentage of crude protein and crude fat, maximum percentage of crude fiber, name of each ingredient, maximum percentage of salt if over 1%. Special label requirements for mineral feeds. Feeds sold for mixing purposes only exempt from fee. Deposit of samples is not required unless requested. Administrative officer: Chief, Bureau of Markets, Department of Agriculture and Conservation, Providence.

SOUTH CAROLINA

Registration is required on Jan. 1 annually; no fee. Inspection fee 25¢ ton, payable either by stamps attached to each package or monthly on sworn statement of shipments. Feed for "mixing purposes only" is exempt if so labeled. All feeds used for feeding livestock and poultry must be registered, except whole hays, straws, cottonseed hulls, and corn stover when not mixed with other materials; whole seeds or grains of cereals when not mixed with other materials and when not in damaged condition as determined by inspection to be unfit for food purposes, mixed or unmixed. Label must show weight of package, name, brand or trademark, name and address of manufacturer, jobber or importer; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; names of ingredients. Information may appear either in the form of printing on package or tag attached to package, the latter being preferable. Printing must be in black ink (rubber stamp not recognized); tag if used must not be larger than 4¼x4¼ in. Tags or labels must not be attached with any metal fasteners. A regulation in effect provides that no feeds or mixtures of feeds will be accepted for registration or allowed to be offered for sale that contain less than 15% crude protein except molasses or sugar feeds and all scratch feeds for poultry which may be sold under a minimum crude protein guarantee of 9%; beet pulp and corn bran under a minimum crude protein guarantee of 6% and corn chop under a minimum crude protein guarantee of 7%. Standard weights: 25, 50, 75, 100, 125, 150, 175 and 200 lb. Samples of not less than 1 lb. are to be collected from not less than 10 packages if there are that many in the lot; not required to be collected in duplicate. Administrative officer: Commissioner of Agriculture and Commerce, Columbia.

SOUTH DAKOTA

Registration is required annually on or before Jan. 1 or before goods are offered for sale. Fee, $1 per brand; $15 for each brand of concentrated commercial feedingstuffs sold, offered for sale or distributed as and for food for dogs, cats and other pets in packages of 5 lb. or less; $25 for each brand of mineral feeds; $25 for each initial registration of brands of livestock remedies; such registration may be renewed annually by payment of a fee of $5 provided that the formula of such remedy has not been changed. Inspection fee is 10¢ per ton payable on semi-annual sworn statement showing number of net tons of feedingstuffs, except dog and cat food and except mineral feeds, sold or distributed during six preceding calendar months. Reports are due on or before 15th day of January and the 15th day of July each year. Materials requiring registration are mineral feeds; livestock remedies; all commercial feedingstuffs — "Concentrated Commercial Feedingstuffs" shall be construed to mean and include any product used or offered to be used for feeding livestock, poultry or other domestic animals and animals grown in captivity, except whole seed or grain, whole hay, straw, silage, and corn fodder, unmixed meals made from and composed of entire grains of wheat, rye, barley, oats, Indian corn, buckwheat, millet, broom corn, kafir, milo, or other seed or grain, and except mixed or unmixed meals of grains, with or without ground screenings added, which are sold and delivered in bulk to the consumer and except those products hereinafter designated as mineral feeds. Label for commercial feeds must show net weight, name, brand or trademark; name and principal address of manufacturer or person responsible for placing commodity on market; minimum percentage of crude protein, and crude fat; maximum percentage of crude fiber; specific name of each ingredient and actual percentage by weight of limestone or other calcium carbonate-bearing material and of common salt contained in feed; provided that, if total amount of added mineral matter exceeds 1% by weight of whole feed, then label shall also show minimum percentage of calcium, phosphorus and iodine. Special regulations for labeling mineral feeds and livestock remedies. Information may appear in form of printing on package or tags attached to package; if printed on tags must not be smaller than 10-point for commercial feeds and mineral feeds and 8-point for livestock remedies. Deposit of samples is not necessary unless requested. Administrative officer: Secretary of Agriculture, Pierre.

TENNESSEE

Registration is required for all feeds used for livestock and domestic animals except whole hays, straws and corn stover where not mixed with other materials; unmixed whole seeds or grains of cereals when not mixed with other materials; no fee; registrations permanent. Inspection fee 15¢ per ton. In lieu of affixing or furnishing inspection stamps, application may be made to commissioner of agriculture for permit to pay fee on a monthly report basis; report must be under oath and is due and inspection fee payable on the 10th of each month. Label, either in the form of print-

Canadian Millfeed Output

Note: In tons. Source: Dominion Bureau of Statistics.

	1948-49	1947-48	1946-47	1945-46
Aug.	57,186	62,848	72,520	68,354
Sept.	72,381	67,392	77,278	69,493
Oct.	69,131	64,847	82,387	78,289
Nov.	67,023	78,127	81,780	76,780
Dec.	56,340	59,051	69,377	72,458
Jan.	49,614	57,774	83,543	74,096
Feb.	46,067	64,310	73,076	71,150
March	54,429	56,960	79,471	70,318
April	53,721	71,181	81,170	72,796
May	52,534	63,140	89,033	78,154
June	54,065	69,479	64,783	73,346
July	19,097	67,963	78,209	72,164
	691,466	843,158	976,652	881,044

U.S. Feed Supply and Use Per Animal

Note: Year beginning October, average 1937-41. **Source: USDA**

Item—	Average 1937-41 Million tons	1945 Million tons	1946 Million tons	1947 Million tons	1948* Million tons	1949† Million tons
Supply—						
Stocks beginning of crop year‡	18.9	14.9	19.9	13.8	7.7	20.0
Production—						
Corn	72.1	88.7	81.6	65.8	105.1	94.4
Oats	18.1	24.6	24.9	19.2	23.9	21.2
Barley	6.9	8.6	8.2	6.7	7.0	5.7
Sorghum grains	2.2	2.7	2.8	2.7	2.7	4.3
Total feed grains produced	99.3	114.6	124.3	93.4	138.3	125.6
Other grains fed‖	4.4	8.1	5.3	5.4	5.1	4.4
By-product feeds for feed	15.4	17.7	18.6	18.0	19.0	19.5
Total supply of concentrates	138.4	156.1	168.9	133.6	170.7	179.7
Utilization—						
Domestic feed grains fed	85.1	107.6	100.2	87.1	99.4	103.8
Domestic wheat and rye fed	4.5	7.8	8.2	5.3	4.5	4.9
Other grain fed	0.2	0.2	0.1	0.1	.4	.4
Oilseed cake and meal fed	3.9	6.8	5.8	6.2	7.3	7.4
Animal protein feeds fed	2.5	2.6	3.3	2.4	2.4	2.6
Other by-product feeds fed	5.6	8.5	11.3	10.4	8.9	9.3
Total concentrates fed	106.1	133.2	124.8	111.5	124.1	127.7
Feed grains for seed, human food, industry and export	12.1	13.3	16.3	13.8	17.8	17.3
Total utilization	117.4	146.5	144.2	125.3	141.9	145.1
Total utilization adjusted to crop year basis	118.5	144.2	148.1	126.9	140.7	145.7
Stocks at end of crop year‡	19.9	19.8	13.8	7.7	20.0	34.0
Number of grain-consuming animal units fed annually (Oct.-Sept. (million)§	133.1	167.8	161.4	155.5	161.0	166.0
Supply of all concentrates per animal unit (ton)	.89	.92	.98	.88	1.05	1.07
Concentrates fed per animal unit (ton)	.80	.79	.77	.72	.77	.76

*Preliminary.

†Based on indications in December, 1949. Tentative estimates of utilization and carryover.

‡Stocks in all positions of corn October 1 and oats and barley July 1.

‖Imported grain and domestic wheat and rye fed.

§For weights, see Table 2, October, 1949, Feed Situation.

ing on package or tag attached to each package must state net weight; name and address of manufacturer; names of all ingredients; name, brand or trademark; minimum percentage of crude fat and crude protein; maximum percentage of crude fiber; standard weights: 1, 2½, 10, 25, 50, 100 and 140 lb. Packages under 1 lb. are permitted if weight is "conspicuously" marked in at least 10-point type. Deposit of samples is not necessary unless requested. Administrative officer: Commissioner, Department of of Agriculture, Pierre.

TEXAS

Registration is required for each brand; no fee; registrations are permanent. Inspection fee, 10¢ per ton; tax tags to be affixed to each package. Label information must appear on tax tag or sticker attached to package and must state net weight; brand name; name and address of manufacturer or importer; minimum percentages of crude protein, crude fat and nitrogen-free extract; maximum percentage of crude fiber; names of the ingredients (if a mixed feed); and percentage of each ingredient when rice hulls, peanut shells, corn cobs, oat hulls or other similar substances are present in a mixed feed. Deposit of samples is required, accompanied by affidavit, that it is an average sample of the material it represents. Standard weights: 5, 8⅓, 8½, 10, 12½, 16⅔, 25, 50, 75, 100, 125, 133⅓ and 175 lb. Samples not exceeding 2 lb. to be collected in presence of party or parties in interest or their representative from not less than 1% of the whole lot inspected. Administrative officer: Director, Texas Agricultural Experiment Station, College Station.

UTAH

Annual registration by calendar years is required for all brands; registration fee $4; fee for amending any certificate of registration $1. Inspection fee, 10¢ per ton, applies only on feeds mixed to order. All feeds used for feeding birds and other domestic animals or domesticated wild animals are subject to registration except unmixed whole seeds or grains as defined by U.S. grain standards; unmixed meals made directly from and consisting wholly of any one of the following entire grains: corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir, milo or other seeds or grains, entire, unmixed hays, straws, cottonseed hulls, stover or silage, whether whole, ground or chopped, when unmixed with other materials. Each package shall have affixed thereto a tag in a conspicuous place on the outside containing a legible and plainly printed statement clearly and truly certifying net weight of contents; name, brand or trademark; name and address of manufacturer or distributor; minimum percentage of crude protein and crude fat; maximum percentage of ash, crude fiber, and maximum percentage of minerals; specific name of each ingredient. Deposit of samples is not necessary unless requested. Administrative officer: State Board of Agriculture, Salt Lake City.

VERMONT

Annual registration by calendar years or before offered for sale is required for each brand; registration fee: $20 for each brand for each calendar year or portion thereof for wholesalers; retailers $10 annually. Materials requiring registration are linseed oil meals, cottonseed oil meals, cottonseed feeds, pea meals, coconut meals, gluten meals, gluten feeds, maize feeds, starch feeds, sugar feeds, distillers' dried grains, brewers' dried grains, malt sprouts, hominy feeds, cerealine feeds, rice meals, oat feeds, corn and oat chops, corn and oat feeds, corn bran, ground beef or fish scraps, meat and bone meals, mixed feeds, wheat, rye, barley and buckwheat offals, condimental stock and poultry foods, patented proprietary or trademarked stock and poultry foods, fox, mink, dehydrated food for dogs, and other materials of a similar nature. Each package must be labeled, either in form of printing on package or tag attached to package, showing net weight of contents; name, brand or trademark; name and address of manufacturer or importer; minimum percentages of crude protein and crude fat; maximum percentage of crude fiber; specific name of each ingredient; percentage of weed seed or screenings, except in poultry feeds, provided it exceeds 2%. Use of wire or metal fasteners to attach tags is prohibited. Deposit of samples not necessary unless requested. Administrative officer: Director, Agricultural Experiment Station, Burlington.

VIRGINIA

Registration is required of all concentrated commercial feedingstuffs intended for feeding livestock and poultry, except hays, straws and corn stover, when unmixed with other materials; whole unmixed seeds or grains of cereals when not mixed with other materials nor the pure products of wheat known as middlings, shorts and bran made from wheat only nor the pure products of corn known as corn meal, hominy grits and corn bran. Every lot or package of commercial feedingstuffs sold must have "affixed thereto, or printed thereon" a statement, certifying the net weight of the package; name, brand or trademark; name and address of manufacturer, jobber or importer; name of each ingredient; guarantee that contents are pure and unadulterated; maximum percentage of crude fiber; minimum percentage of crude fat and crude protein allowing 1% of nitrogen to equal 6¼% of protein. All concentrated feedingstuffs must be in standard weight packages of 25, 50, 75, 100, 125, 140, 150, 175 and 200 lb. Before selling or offering for sale a copy of the statement above must be filed for registration with the Dairy and Food Commissioner for each and every feedingstuff bearing a "distinguishing name or trademark" and, on request, must accompany this statement with a sealed glass jar or bottle containing at least 1 lb. of each feedingstuff to be sold. Concentrated commercial feeds must bear inspection tags. Inspection fee, 15¢ per ton. Administrative officer: Director, Dairy and Food Division, Department of Agriculture and Immigration, Richmond.

WASHINGTON

Registration annually, on or before April 1 or before offered for sale, is required for each brand per year; fee not more than $4 per year per brand. Retail dealers must pay license fee of $2 for each establishment or vehicle from which feeds are sold. Each package must be labeled, either in form of printing on package or tag attached thereto, showing net weight of contents; name, brand or trademark; name and address of manufacturer or dealer; minimum percentage of crude fat and crude protein and maximum percentage moisture; maximum percentage of crude ash (not to exceed 12% except in mineral feeds); maximum percentage of crude fiber (not to exceed 15%); and specific name of ingredients. All feeds used as a feedingstuff for domestic animals which are claimed to have nutritive value must be registered except hay, wheat flours or other flours, single grains, whole seeds or unmixed meals made from whole grains of wheat, rye, barley, oats, corn or other cereal which no part has been removed. Deposit of samples is not required. Administrative officer: Director, Department of Agriculture, Olympia.

WEST VIRGINIA

Registration is required for all commercial feedingstuffs used for feeding animals and birds, except whole seeds or grains and unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo, whole hays, straws, corn stover when unmixed with other materials and all other unmixed materials containing a minimum of 60% of water. Registration fee for each brand, $1 (permanent unless cancelled or revoked). Inspection fee, 15¢ per ton on feeds in packages of 15 lb. or more, 2¢ per cwt. on feeds in packages of less than 15 lb. Each registrant is required to file with the commissioner of agriculture on or before the 20th day of January and July each year a sworn statement setting forth net weight by brand, names and kinds of commercial feedingstuffs sold in the state preceding six months and pay tonnage fee prescribed by law. Every lot, parcel, bag, or other container of commercial feedingstuff must have attached a tag to convey the following information, except this does not apply to paper containers on which the following information is legibly printed: net weight of contents of package (gross weight not accepted); name, brand or trademark; name and address of the manufacturer or person responsible for placing the commodity on market; minimum percentage of crude protein, minimum percentage of crude fat, maximum percentage of crude fiber; specific name of each ingredient used in its manufacture with a statement of the amount or percentage of each such ingredient as salt, charcoal, carbonate and phosphate of lime, grit and such inferior or objectional materials as the commissioner may hereafter prescribe; specific name of each and every ingredient used in manufacture of

Minneapolis Linseed Mills

Archer-Daniels-Midland Co.—Yearly capacity: 4,500,000 bu. flax, 110,000 bbl. oil, 75,000 tons cake.

Cargill & Co., Inc., Northwest Linseed Div.—Yearly capacity: 2,500,000 bu. flax, 110,000 bbl. oil, 50,000 tons cake.

Spencer Kellogg & Sons, Inc.—Yearly capacity: 4,400,000 bu. flax, 425,000 bbl. oil, 100,000 tons cake.

Minnesota Linseed Oil Co.—Fridley plant: yearly capacity: 1,000,000 bu. flax, 200,000 bbl. oil, 20,000 tons cake. Minneapolis plant: yearly capacity: 2,000,000 bu. flax, 200,000 bbl. oil, 40,000 tons cake.

the commercial feedingstuff in the common English term for such ingredient; actual percentage, source and condition of grain screenings used. Deposit of samples is not necessary unless requested. Administrative officer: Commissioner of Agriculture, Charleston.

WISCONSIN

Registration is required of all materials used for feeding animals or birds except unmixed whole seeds or grains; unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir, milo and other seeds or grains; whole hays, straws, cottonseed hulls, stover and silage, when unmixed with other materials. A registration fee of $1 is required for each brand plus an inspection fee of [illegible] per ton on all such feeds sold in the state during the preceding calendar year, provided the minimum inspection fee is not less than $15, or a $15 registration fee for a wholesaler's license authorizing sale or resale anywhere within the state or a $1 registration fee for a retailer's license authorizing sale at retail at one location in the state to ultimate user and not for resale. Feed for mixing purposes is exempt if so labeled. Each package must be labeled, either in form of printing on package or tag attached, showing net weight; brand or trade name; name and principal address of manufacturer or person responsible for placing commodity on market; ingredients; minimum percentages of crude protein, crude fat and maximum percentage of crude fiber. In the case of mixed feeds containing more than a total of [illegible] of added mineral ingredients and in case of mineral feeds mixed or unmixed, minimum percentage of calcium (Ca.), phosphorus (P.), iodine (I.), maximum percentage of salt (NaCl.). If no nutritional properties other than of a mineral nature are claimed, percentages of crude protein, crude fat and crude fiber may be omitted. In case of feeds containing for their principal claim dietary factors in forms not expressible by the foregoing chemical components or are thereby inadequately described, a statement of guarantee must be specified by ruling of the department. Deposit of samples not necessary unless requested. Administrative officer: Director, State Department of Agriculture, Madison.

WYOMING

Annual registration is required by Jan. 1 or before goods are offered for sale; no fee, registration tags required. Each package must bear a tag or label certifying that product has been properly registered. The label either in the form of printing on package or tag attached, must show net weight of contents; name, brand or trademark; name and address of manufacturer or dealer; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; specific name of each ingredient. All feedingstuffs used for feeding livestock and poultry must be registered, except whole seeds or grains; unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo; whole hays, straws, cottonseed hulls and corn stover when unmixed with other materials and all other materials containing [illegible] or more of water. When requested, a sample of not less than 1 lb. in sealed glass jar is to be forwarded to State Chemist, Laramie, Wyo. Administrative officer: Commissioner of Agriculture, Cheyenne.

U.S. Feed Grain Supply, Production & Carryover

Note: U.S. total feed grain supplies by crop year. **Source: USDA**

Year beginning	Corn: Production Mil. bu.	Corn: Carryover Oct. 1 Mil. bu.	Corn: Imports Mil. bu.	Corn: Total supply Mil. bu.	Oats: Production Mil. bu.	Oats: Carryover July 1 Mil. bu.	Oats: Imports Mil. bu.	Oats: Total supply Mil. bu.
Average, 1937-41	2,374	408	1	[illegible]	1,111	172	2	1,308
1942	3,069	491	1	3,560	1,343	194	19	1,556
1943	3,000	384	4	3,384	1,149	328	81	1,558
1944	3,088	231	8	3,322	1,149	208	82	1,439
1945	2,851	318	1	3,187	1,538	234	24	1,794
1946	3,250	173	1	3,424	1,498	282	1	1,781
1947	2,384	287	(1)	2,671	1,199	276	2	1,477
1948	3,682	126	1	3,809	1,483	184	18	1,686
1949*	3,378	815		4,193	1,321	296	119	1,636

Year beginning	Barley: Production Mil. bu.	Barley: Carryover July 1 Mil. bu.	Barley: Imports Mil. bu.	Barley: Total supply Mil. bu.	Sorghum grains: Production Mil. bu.	Sorghum grains: Carryover Oct. 1 Mil. bu.	Sorghum grains: Tot. supply Mil. bu.	Total feed gr'n supply Mil. ton
Average, 1937-41	290	65	0	355	79	....	79	112.4
1942	426	[illegible]	[illegible]	[illegible]	117	....	117	[illegible]
1943	324	131	41	495	118	....	119	132.8
1944	276	78	26	380	183	....	183	136.4
1945	247	85	8	340	97	....	97	128.8
1946	218	58	4	320	147	....	147	132.3
1947	281	60	(1)	330	98	7	105	‡109.3
1948	314	62	12	388	128	7	130	‡148.6
1949*	238	101	†19	344	153	18	171	‡150.1

*Preliminary.
†Tentative estimates, based on indications in December.
‡Excluding carry-over of sorghum grains.

Canadian Feed Laws

Registration is required of all feedstuffs intended for the feeding of livestock and poultry except whole hays, straws, corn stover and silage when not mixed with any other materials; boiled oats and barley; cracked Indian corn and whole seeds or grains of cultivated farm crops; chop feeds (1) ground from whole grains of wheat, rye, barley, oats, Indian corn, buckwheat, flax, emmer, spelt, field peas, field beans or soybeans, whether used singly or in combination, (2) ground from mixed feed oats (wild oats), No. 1 feed screenings or No. 2 feed screenings, respectively, when used singly; bran, shorts, middlings, feed flour and germs, products of wheat. Labeling, but not registration, is required of bran, shorts, middlings, feed flour and germ, products of wheat; chop feeds; limestone, marl, chalk, oyster shell, clam shell and other calcium or calcium and grit materials; vitamin supplying oils and other feedingstuffs as may be prescribed by regulation. Registration required annually, expires on Sept. 30 following date of issue. $2 per year for each brand. Label information, either in form of printing on one side of package or on one side of tag attached to package, must include name and address of registered owner; brand and name; registration number; net weight of contents; specific name of each ingredient and guaranteed analysis: for feedingstuffs: minimum amount of crude protein and crude fat, maximum amount of crude fiber; for mixed feedingstuffs, commonly called supplemental feeds: minimum amount of crude protein and crude fat, maximum amount of crude fat in excess of [illegible], actual amounts of each of the following as are intentionally or purportedly present: calcium, phosphorus, iodine, iron and salt; for mixed feedingstuffs for mineral nutrition: actual amounts (within permitted tolerances) of each of the following as are intentionally or purportedly present: calcium, phosphorus, iodine, iron and salt; blood meal: minimum amount of crude protein; bone meal, or any other bone product except bone char: minimum percentage of crude protein, maximum percentage of crude fat if in excess of [illegible], actual amounts (within permitted tolerance) of phosphorus and calcium; dried milk or buttermilk, dried whey: minimum percentage of crude protein and crude lactose; fish liver meal: minimum percentage of crude protein and minimum and maximum percentages of crude fat; fish meal or any other product (except liver meal) of fish or fish waste: minimum percentage of crude protein, maximum percentage of crude fat, crude fiber (if in excess of [illegible]) and salt; meat meal or scrap, tankage, or any other product of meat and bone, including whale meal: minimum amount of crude protein, maximum amount of crude fat and crude fiber (if in excess of [illegible]); semi-solid milk or buttermilk: minimum amount of crude protein and maximum amount of moisture. (Amounts are to be stated as percentages of weight of article, provided that iodine may be stated as ounces per hundred pounds of the article). Deposit of samples is not necessary unless requested. If requested, two samples, one to be left with the seller, are to be taken from five separate original packages or from five separate sections of the bulk or stream, provided that in lots of less than five packages portions must be drawn from at least [illegible] of the packages. Administrative officer: Assistant Director, Production Service, Department of Agriculture, Ottawa.

For Additional Facts:

Crops - - Pages 85-93

Flour Section, Pages 2-47
- Exports and Imports
- Millfeed Production
- World Import Duties

Foreign Section, Page 110
- Crops
- Exports and Imports
- Regulations

Grain Section, Pages 57-93
- Contract Grades of Grain
- Corn and Wheat Standards
- Elevators and Capacities
- Grain Receipts and Shipments
- Stocks, Distribution and Supply

Topical Index

U.S. Gr. Sorghums Production, Acreage by States

Note: By calendar years, 000's omitted **Source: USDA**

State	Acreage harvested: Average 1938-47	Acreage harvested: 1948	Acreage harvested: 1949	Yield per acre, bu.: Average 1938-47	Yield per acre, bu.: 1948	Yield per acre, bu.: 1949	Production, bu.: Average 1938-47	Production, bu.: 1948	Production, bu.: 1949
Indiana	[illegible]	1	1	*27.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iowa	[illegible]	1	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Missouri	[illegible]	28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
North Dakota	[illegible]	4	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
South Dakota	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nebraska	[illegible]	72	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kansas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
North Carolina		[illegible]	[illegible]		[illegible]	[illegible]	....	[illegible]	[illegible]
Alabama	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arkansas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Louisiana	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Oklahoma	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Texas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Colorado	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New Mexico	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arizona	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
California	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
United States	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

*Short-time average.

1950 FEEDSTUFFS ANALYSIS TABLE

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This chart is published to assist feed manufacturers and students of nutrition in formulating feeds. The values given are not average, but carry a "margin of safety" so that the feed should contain at least as much protein, fat, minerals and vitamins, and not as much fiber as the final calculations show.

Protein %	Fat %	Fiber %	Calcium %	Phosphorus %	Feedstuff—	Vit. A U.S.P. units per lb.	Milligrams, per lb. Ribo-flavin	Niacin	Panto-thenic acid	Choline
20	3.0	18.0	1.00	.22	Alfalfa leaf meal (dehydrated)	90,000	8.00	20.0	17.0	450
20	3.0	18.0	1.00	.22	Alfalfa leaf meal (unsurred)	70,000	7.00	18.0	16.0	400
17	1.5	27.0	1.50	.20	Alfalfa meal (dehydrated)	50,000	7.00	14.0	14.0	400
15	1.5	30.0	1.50	.20	Alfalfa meal (dehydrated)	40,000	7.00	12.0	12.0	400
15	1.5	31.0	1.70	.30	Alfalfa meal (either type)	15,000	5.00	9.0	18.0	400
11.5	2.0	6.0	.05	.30	Barley		0.70	24.0	3.0	500
9	2.0	6.0	.06	.30	Barley (Pacific Coast)		0.50	20.0	3.0	500
10	1.0	4.0	.10	.40	Beans (navy cull)		1.00	17.0	.5	
9	0.5	20.0	.65	.05	Beet pulp, dried		0.30	8.0	.5	
60	1.0	1.0	.30	.25	Blood meal		1.40	16.0	2.5	
24	6.0	15.0	.70	.45	Brewers dried grains		0.25			
40	.5	2.0	.05	1.00	Brewers dried yeast		15.00	225.0	50.0	1,500
11	2.0	10.0	.04	.30	Buckwheat		0.70	30.0		
32	3.0	9.0	1.30	1.00	Buttermilk, dried		17.00	7.5	18.0	500
6	2.0	15.0	7.00	.10	Citrus pulp, dried		1.00	9.0	6.0	
19	6.0	11.0	.30	.60	Coconut oil meal (copra meal)		1.00	15.0	3.0	500
8	3.0	2.5	.07	.25	Corn (yellow)	7,000	0.50	8.5	2.0	200
7	3.0	8.0	.02	.05	Corn and cob meal (yellow)	7,500				
2.5	1.0	30.0			Corn cobs					
10	7.0	9.0			Corn germ meal		1.00	15.0	5.0	800
23	1.5	9.5	.20	.70	Corn gluten feed	1,000	0.60	30.0	6.0	500
43	3.5	4.0	.10	.50	Corn gluten meal	12,000	0.70	30.0	5.0	300
30	1.0	16.0	.10	.30	Corn oil meal (solvent)		7.00			
36	4.5	16.0	.70	1.20	Cottonseed oil meal		1.50	20.0	6.5	1,200
41	5.0	11.0	.70	1.20	Cottonseed oil meal		1.50	20.0	6.5	1,200
41	1.5	13.0	.70	1.00	Cottonseed oil meal (solvent)		1.00	20.0	6.5	1,000
25	9.0	11.0	.05	.20	Distillers dried grains (light)	1,000	1.00	15.0	2.0	600
25	7.0	9.0	.15	.50	Distillers dried grains, with solubles	1,000	2.00	25.0	5.0	1,200
35	4.0	4.0	.30	1.10	Distillers dried solubles	1,000	5.00	50.0	12.0	1,500
60	6.0	1.5	4.50	3.00	Fish meal, herring		2.00			
60	6.0	1.0	5.00	3.20	Fish meal, menhaden		2.00	35.0	4.0	
55	6.0	1.5	7.00	3.50	Fish meal, red fish		2.00	28.0	7.5	1,400
65	6.0	1.0	5.00	3.70	Fish meal, sardine		2.50	30.0	3.0	1,500
62	4.5	1.0	6.50	3.50	Fish meal, white		4.00	30.0	3.0	
50	4.0	0.0	.10	.80	Fish solubles, 50% solids		6.00	170.0	18.0	1,600
11	5.0	5.0	.07	.55	Hominy feed (yellow)	100	1.00	18.0	3.5	400
11	3.5	3.5	.02	.30	Kafir corn		0.50	18.0	5.0	300
10	7.0	7.0	.07	.30	Kafir head chops					
10	2.0	27.0	1.00	.30	Lespedeza hay meal					
37	3.5	8.0	.35	.75	Linseed oil meal (old process)		1.70	13.0	5.0	800
34	0.5	6.0	.35	.75	Linseed oil meal (solvent)		1.70	15.0	5.0	800
24	1.5	15.0	.20	.70	Malt sprouts, dried		2.35			
45	9.0	2.5	11.00	3.50	Meat and bone scraps		2.40	21.0	2.0	1,300
50	9.0	2.5	10.00	3.00	Meat and bone scraps		2.50	21.0	2.0	1,300
55	9.0	2.5	8.00	4.00	Meat scraps		2.60	20.0	2.0	1,300
11	3.5	2.5	.07	.33	Milo maize		0.40	13.0	4.0	300
10	6.0	7.0	.04	.30	Milo head chops					
7	0.0	0.0	.05	.02	Molasses, beet			30.0		
3	0.0	0.0	.50	.05	Molasses, cane		1.00	30.0	17.0	300
0.5	0.0	0.0	.50	.05	Molasses, corn (hydrol)					
12	5.5	15.0	.10	.30	Oats		0.30	0.5	5.0	425
9	6.5	15.0	.10	.35	Oats (Pacific Coast)					
15.5	6.5	2.5	.10	.45	Oats (hulled), oat groats		0.65	7.5	5.0	550
15.5	6.5	2.5	.10	.65	Oats, feeding rolled		0.65	7.5	5.0	550
0	.5	50.5			Oat hulls					
13	1.0	14.0	.05	.70	Oat, milfeed					
45	0.0	0.0	.09	.55	Peanut oil meal (expeller)		1.60	77.5	14.0	800
50	1.0	0.0	.20	.55	Peanut oil meal (solvent)		2.00	77.5	14.0	800
11.5	11.0	11.0	.10	1.05	Rice bran		1.00	120.0	10.5	
12	10.0	1.0	.04	1.10	Rice polishings		3.00	225.0	4.5	400
11	1.5	2.5	.04	.30	Rye		0.70	7.0	4.0	
40	7.0	6.5	7.00	1.50	Sesame oil meal		1.50			
40	2.0	11.0	7.00	1.25	Shrimp meal					
34	.5	0.0	1.30	1.00	Skim milk, dried		9.00	5.0	15.0	500
36	17.0	5.0	.70	.60	Soybeans		3.70	15.0	3.0	
41	4.0	6.0	.35	.60	Soybean oil meal (expeller)		3.70	18.0	6.0	1,300
45	.7	7.0	.35	.65	Soybean oil meal (solvent)		3.70	18.0	6.0	1,400
3	.8	4.0	.37	.24	Sweet potato meal (dehydrated)	70,000	0.45	11.8		
60	8.0	3.0	6.00	3.00	Tankage		1.00	18.0	1.1	1,000
13	1.8	3.0	.05	.40	Wheat, hard		0.55	24.0	6.5	450
10	1.0	3.0	.05	.60	Wheat, soft western		0.55	20.0	4.5	450
14	3.5	11.0	.10	1.20	Wheat bran		1.00	60.0	12.0	400
16	3.5	6.5	.05	.70	Wheat, flour middlings, gray shorts		0.60	40.0	4.5	450
26	8.0	2.5	.01	1.00	Wheat, germ meal		2.70	75.5	3.5	1,500
15	3.5	9.0	.10	.90	Wheat, mixed feed		0.70	50.0	6.0	450
16	3.5	3.0	.10	.50	Wheat, red dog		0.45	25.0	6.0	450
15	3.5	8.0	.10	.90	Wheat, standard middl., brown shorts		0.80	44.0	8.0	400
14	2.0	1.0	.05	.50	Wheat, flour second clears		0.45	25.0	6.0	450
12	.5	0.0	.80	.70	Whey, dried cheese		11.00	5.0	20.0	700

ANALYSIS OF MINERALS

	Calcium %	Phosphorus %
Bone meal, steamed	24	12.0
Bone meal, special steamed	28	13.0
Defluorinated super phosphate	31	13.0
Defluorinated rock phosphate	34	8.5
Defluorinated treble phosphate	17	18.5

Use the figures as guaranteed by the manufacturer

	Calcium %	Phosphorus %
Phosphate with colloidal clay	18	8.5
Curacao Island phosphate	35	15.0
Di-calcium phosphate	26	20.0
Limestone, 98% ca. carb. and oyster shell flour	38.0	00.0

Notes on the Feedstuffs Analysis Table

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Feed Formulation

It is suggested that before any attempts are made in formulating feeds that the nutritive requirements for livestock and poultry as outlined in the pamphlets published by the National Research Council be thoroughly studied. Copies of these pamphlets may be obtained from the National Research Council, 2101 Constitution Ave. N.W., Washington 25, D.C.

Vitamin A—Carotene

Last year a new method of analysis for carotene was officially adopted by the A.O.A.C. It gives a more nearly accurate measurement of the biologically active carotenoids. The figures in the Vitamin A column of this table are calculated from the carotene content as determined by many laboratory assays using the new method of determination.

Most feed manufacturers generally assume that for poultry a U.S.P. unit of Vitamin A from carotene is equal in biological activity to a U.S.P. unit of true Vitamin A. Consequently, to help the feed manufacturer make his calculations the Vitamin A activity rather than the carotene content is shown in this table. It should be emphasized that this relationship between Vitamin A and carotene is assumed only for poultry. For four-footed animals, it is suggested that three U.S.P. units of Vitamin A from carotene be used to furnish the activity of one unit of true Vitamin A.

Alfalfa

There are few products used in making formula feeds that vary as widely in vitamin content as alfalfa. The carotene content of commercially available alfalfa varies from an equivalent of 10,000 to 300,000 units or more of Vitamin A activity per lb. The high values are generally obtained at the start of the cutting season, but as the season progresses, because of the instability of carotene and because of variations in field conditions, these values generally drop, depending upon when it is cut and and how it was processed and stored.

When a feed manufacturer depends upon alfalfa to supply a major portion of the Vitamin A activity in his feeds, analysis should be obtained from a reputable laboratory at the time the alfalfa is to be used.

Loss in Storage

Among many other factors which must be taken into consideration by the feed manufacturer is the question of vitamin loss from the time the feed is made until it is consumed by the animals. The important factor that governs results is whether there is a sufficient amount of vitamins ingested by the animal. Vitamin A and carotene have long been recognized as the hardest to handle because they are readily oxidized. A safety factor should be allowed in formulating any feed to allow for these losses, that is, put in more than just enough to meet minimum requirements, increasing the amount when conditions require it.

Some of the detrimental factors which affect stability are long storage periods before feed is consumed, high storage temperatures, and the high concentration of minerals.

This problem of stability is receiving much attention now and some stabilized products are already on the market. If these new products are used, the manufacturer's recommendations should be given consideration.

Vitamin A—Feeding Oils

A new method for determination of the Vitamin A activity present in fish liver oils was made official as of February 1, 1950, by the A.O.A.C. This method gives results that more accurately express the biologically active Vitamin A content of such oils. These values may be lower than the values expressed by the old method.

Any Vitamin A or A and D feeding oils bought on the basis of the old method of assay should be re-evaluated.

Quick Conversion Table for—Vitamin A

U.S.P. Units	
Per gram	Per lb.
600	272,400
1,000	454,000
2,000	908,000
3,000	1,362,000
4,000	1,816,000

Vitamin A Table

These figures are not intended to indicate how much Vitamin A oil should be added to any feed. The amount would depend upon how much is obtained from other sources such as alfalfa meal and yellow corn.

Conversion Tables

1 pound=454 grams
1 ounce=28.4 grams
1 gram=1,000 milligrams
1 milligram=1,000 micrograms, also called gammas (γ).

1 microgram per gram equals 1 part per million.

.6 micrograms of beta-carotene=1 unit of Vitamin A activity.

.3 micrograms of Vitamin A=1 unit of Vitamin A.

To convert milligrams per gram to milligrams per pound multiply by 454.

To convert micrograms per gram or per pound to milligrams per gram or per pound divide by 1,000.

To convert milligrams per pound to micrograms per gram or parts per million divide by 454 or multiply by 2.2.

Vitamins D_2 and D_3

Irradiated yeast or plant sterols provide Vitamin D_2 which is excellent for 4-footed animals but not suitable for poultry.

Vitamin D from irradiated animal sterols (D-activated animal sterol) or that from fish liver oils provides Vitamin D_3 which is suitable for both poultry and 4-footed animals.

Quick Conversion Table for—Vitamin D

A.O.A.C. Units		I.U. per ton of feed	A.O.A.C. of D per lb. of finished feed
Per gram	Per lb.		
50	22,680	10	363.2
100	45,400	18	363.2
200	90,800	9	363.2
250	113,500	8.4	363.2
400	181,600	6	363.2
600	272,400	5	363.2
1,000	454,000	3.6	363.2
2,000	908,000	2.2	363.2

Wheat and Millfeeds

The analysis of wheat and wheat millfeeds vary with the locality in which they are produced and feed manufacturers must take this into consideration when figuring feed formulas. Use the manufacturer's guarantee as a guide.

Acknowledgement

This table represents the combined work of many laboratories throughout the country. Without their cooperation its accuracy would have been greatly impaired. To the feed control chemists, the research workers, and the chemists in the laboratories of private industry, we wish to express our sincere gratitude and thanks.

INFORMATION ON FOREIGN COUNTRIES

Flour Package Laws for Foreign Countries

British West Africa (Gold Coast, Nigeria, Sierra Leone and Gambia)—There are no specific regulations governing the packaging of imported flour or cereals in British West Africa, except Sierra Leone and Gambia which require flour packages to be "clearly and legibly" marked as to their contents and net weight. No other packaging regulations are known to exist although according to the latest issue of the official Gold Coast Handbook (1937), flour is usually imported into that Colony and Protectorate in bags varying from 14 to 98 lb. A certain amount of flour in small tins of 3, 4 or 7 lb. weight each is imported largely for the European trade. Packaging customs are likely to be more or less uniform through the four territories comprising British West Africa; consequently it is believed the above data on the Gold Coast applies equally to Nigeria, Sierra Leone and Gambia. Good packing is essential to protect contents against tropical climatic conditions, pilferage and very rough handling. Outside packing should be strong and all goods which may be affected by water should be protected by tin-lined cases or water-proof packing.

Canada—Imports very little flour. It is all border trade and no standard package is used.

China—Shipments should be made in 49-lb. cloth bags.

Costa Rica—There are no regulations regarding size or kind of bag or other container in the packaging of flour except that the importation of products packed in used bags is prohibited.

Cuba—There are no regulations governing the packaging of flour. However, wheat flour is customarily imported into Cuba in 200-lb. bags.

Ecuador—Most popular type of container used is the 100-lb. jute bag with cotton liner. Also popular is the 50-lb. bag with cotton liner. There is no special requirement regarding size of bag or fabric. All flour shipped to Ecuador must be accompanied by a certificate of analysis by the competent authority of the place of origin, which has been authenticated by the Ecuadorean Consul at the port of embarkation, without prejudice to the right of the customs authorities to verify, when they see fit, the correctness of the analysis. According to regulations every container shipped to Ecuador must show its gross weight. It must be shown in indelible and easily legible numbers at least six centimeters long. Wheat flour shipped under tariff No. [illegible] must in addition show the net weight in the same type of print. If this is not done a 10% surcharge is assessed.

Egypt—[illegible] products imported for sale are prohibited. An indication of the country of origin or place of manufacture must be shown. Blended flour (farine mélangée) must be labeled "farine mélangée" written in Arabic characters at least 3 cm. in height on the container or on a label glued on or [illegible] attached to the package.

French West Indies—Sale of wheat flour is under government control and all purchases abroad are made in bulk. No retail sales are allowed, flour being distributed to bakeries only. [illegible] authorities state that wheat flour shipped to the French West Indies is put up in either 198-lb. net new 16½ oz. jute bags or in 100-lb. new 50 in., 3.25 yd. osnaburg bags.

Gibraltar and Malta—There are no official regulations governing the packaging of imported flour or cereal products. No information is available on the customary weights of imported packages. The usual export packing is required for shipment.

Guatemala—Packaging requirements in the Sanitary Code do not specify size or kind of bags or other containers in which flour may be imported. The code states "In the manufacture, packing and preservation of foods, beverages and similar products, the use of receptacles is prohibited which have been painted, varnished, tinned or glazed with poisonous or injurious substances which may alter the foods, beverages and similar products." Customary export packing is suggested for goods shipped by way of the Atlantic port of Puerto Barrios, which has excellent wharf facilities. However, for goods shipped by way of San José or Champerico, packing should be strong enough to withstand rough handling because goods are lightered from ships in an open roadstead. Customs duties with a few exceptions are based on weight, and to avoid payment of excess customs duties, it is important that care should be taken in following packing instructions given the exporter by the importer.

Hong Kong—Bags most frequently used are 49-lb. cloth bags. Since relative humidity frequently reaches 95%, cereals should be packed so as to afford maximum protection against moisture.

Indies in [illegible] (Netherland Indies)—The 49-lb. [illegible] larger sacks are not generally acceptable; cotton sacks preferred. [illegible] of cotton sacks is regulated; 50 and [illegible] kilo sacks also used.

Iraq—There are no specific requirements for indicating country of origin on imported goods but this is highly desirable and there are no special labeling or marking requirements. Normally the marks should show the initials of the importer and the city to which it is destined. Packing should be particularly strong because of the rough handling of merchandise at the Port of Basra.

Italy—No regulations govern the size of packages which may be offered for sale. Marking packages to show weight or origin is not necessary. No certificates of analysis or quality are required.

Philippines—The [illegible] label must [illegible] case, quantity and country of origin and it is imperative that packages afford maximum protection against excessive heat and moisture.

Portugal—Type of container in most demand is the bag, size being controlled by rationing in force at the time. There are no special requirements for marking packages to show gross net weight of the flour or the country of origin.

Saudi Arabia—Packing should be heavy enough to withstand the roughest handling and to baffle the most skillful and ingenious pilferage to which shipments are exposed both in transit and upon arrival. Although some imports are subject to duties levied on gross weight, considerations of safety are more important than savings in duty and shipping charges. Goods must pass through the excessive heat and dampness of the Red Sea and other tropical waters and as a result, packages are subject to considerable sweating in the holds of vessels and to exposure to sun and rain on the wharves. Waterproofing is strongly recommended. No special labeling or marking is required.

Spain—Type of container in most demand for flour is the jute sack, made of fibers from corchorus olitarius or corchorus capsularis, technically known as "84,114," with a capacity of 100 kilos.

Union of South Africa—Flour and meal of all kinds and semolina must be sold by net weight in the following authorized amounts: any multiple of ¼ oz. up to and including 2 lb., then multiples of 1 lb. up to and including 15 lb., and thereafter 25, 50, 100 lb. and in the case of flour, wheaten meal and rye meal, 200 lb.

Venezuela—Packaging requirements do not specify size or kind of bag or container; however, foods intended for human consumption may not be packaged in paper, cardboard, cloth or other materials which are colored with artificial colorings, nor in newspapers or other paper which is not adequate. Nevertheless such materials may be authorized for use as secondary wrappings or when they are of such nature that the coloring of the inscription on the exterior surface cannot modify or render injurious the foodstuffs contained in the opinion of the health authorities. Prepared flours which are sold in closed or sealed containers, must be labeled, prior to sale, to show the net metric weight of contents, superimposed on the non-metric marking which the original imported package may have carried.

United Kingdom Grain Imports

Note: In bushels (000's omitted).
Source: The Northwestern Miller.

	Wheat	Corn	Oats	Barley
1949	173,[illegible]	[illegible]	5,[illegible]	[illegible]
1948	148,422	58,799	14,449	28,133
1947	153,778	13,431	11,978	3,273
1946	176,422	8,188	4,968	8,848
1945	132,437	20,422	7,312	4,888
1944	108,728	4,882	....	....
1943	121,308	2,814	....	....
1942	130,178	3,314	....	....
1941	201,336	27,117	7	2,088
1940	214,818	81,781	6,720	21,326
1939	198,318	91,748	8,148	32,088
1938	189,792	115,182	5,513	46,575
1937	188,858	148,040	3,397	43,376
1936	191,196	133,820	9,778	47,998
1935	184,820	117,548	12,718	39,456
1934	198,610	113,704	14,008	41,473

Statistics for the Irish Free State are not included.

United Kingdom Controls and Regulations

Purchasing and Importation—Private purchasing and importation, suspended at the beginning of the war, is still forbidden except under license. In practice this means that the Ministry of Food is the sole buyer and importer of all grain, flour and feedingstuffs. Purchases of grain and flour are made by the Ministry through the media of trade channels, i.e., shippers' representatives and importers in the U.K., except in the case of Australia where there is direct government purchasing through the Ministry of Food and Australian Wheat Board.

Imported Flour—The separate distribution of imported flour to buyers and other consumers which ceased in 1941-2 with the introduction of British milled 85% extraction flour has not been resumed except for a short period in 1946 when the rate of extraction of home milled flour was reduced to 80%. Some releases of imported flour are permitted under license for special purposes such as certain types of biscuit manufacture, ships' stores, export, etc. Otherwise all supplies of imported flour go to the British millers for mixing in with home milled 85% (national) flour. The rate of admixture is varied from time to time according to availability, the present rate in England and Wales being [illegible]% and [illegible]% in Scotland and Northern Ireland.

National Flour—This is milled from an all wheat grist, the rate of extraction being calculated on "dirty" wheat intake. The wheats constituting the grist vary according to availability but following the wartime and postwar policy of increased production of native wheat, the percentage of home grown wheat is high, ranging this year from [illegible]% during the first few months following the harvest and decreasing as the season advances. Flour used for bread making must contain the maximum amount of grist which the mill plant can incorporate. "M" Flour which is national flour without [illegible] can be supplied for flour confectionery, biscuit and household use, etc. All national flour has added to it 11 oz. of "creta preparata" (calcium carbonate) a sack of 280 lb. This addition is to make good the natural calcium which is rendered ineffective by the phytic acid in long extraction flour.

Price of Flour—All flour for human consumption is heavily subsidized and sells in bulk to bakers, packers, manufacturers, etc. at the fixed price of $7.[illegible] for 280 lb. delivered in. This price is for flour packed in returnable bags of 140 lb., the bags being charged at [illegible] each. The price is also subject to discounts for prompt payment equivalent to [illegible] for payment in 7 days, or for payment in 14 days. If the payment in 21 days, net in 28 days. Imported flour delivered under license for human consumption is sold at the same basic price but is packed in non-returnable bags which are charged at [illegible] each for jute bags and [illegible] each for cotton bags. The baker receives a further subsidy in the form of a rebate on flour used for bread. This rebate is [illegible] in England and Wales and [illegible] in Scotland on each sack of 280 lb. The biscuit manufacturer has to pay a levy of $1.[illegible] for 280 lb. on all flour used for manufacture of biscuits for home consumption. Flour for ships stores, export, dog biscuit manufacture, industrial uses and other special licensed purposes is charged at a price approximating to the

replacement value. The present price for these uses is £11.11 for 280 lb. as warehouse (less the usual flour discounts) plus 1/6 a bag for non-returnable jute bags of 140 lb. and 2/4 for non-returnable cotton bags of 140 lb.

Method of Flour Distribution.—Distribution is made to bakers and other consumers by millers, importers and factors. At the separate distribution of imported flour is not allowed, supplies of national flour for distribution by importers are arranged by small "Allocating Committees" in the seven main ports of London, Liverpool, Hull, Bristol, Glasgow, Leith and Belfast, comprising one representative of the importers and one representative of the home millers. Supplies of imported flour to the mills for milling are made by the Port Area Grain Committee for each of the seven ports.

Method of Remuneration to Millers and Importers.—British millers, grain and flour importers are remunerated on a "global" basis, each of the trades setting up small committees or associations to distribute the sums received from the Ministry of Food to the individual mills and traders. In the case of the millers it is the Millers' Mutual Fund, Ltd.; in the case of the grain trade, the Grain Trade Remuneration Committee appointed by the Federation of Corn Trade Associations, Ltd.; in the case of flour importers, the Flour Importers' (Distribution and Control) Association, Ltd. Flour factors (jobbers) are remunerated by a commission of 1/- per sack of 280 lb. of flour distributed up to the limit of their annual average pre-war trade for the three years ending June 30, 1939.

Bleaching Regulations in Foreign Countries

Australia.—Each state of the Commonwealth enacts its own food laws and regulations, resulting in variations with regard to flour bleaching; e.g., South Australia does not permit chemical bleaching of flour, but New South Wales permits bleaching by the electric process only.

Belgium.—Bleaching is entirely prohibited by a royal decree of June 15, 1938.

Belgian Congo.—There are no local regulations governing chemical improvers and bleaching. Those processes are not used in the locally milled flour but are present in the imported flour which accounts for 95% or more of the consumption.

Brazil.—Bleaching of flours is not permitted under the law but most imported flours have been bleached to some extent. Flours milled in Brazil are not bleached.

Bulgaria.—Bleaching is permissible if wholesome agents are used.

Canada.—Bleaching is permitted. Non-injurious ingredients may be added for modifying the color or baking qualities, provided that, in the case of the addition of non-injurious ingredients, there must be stated clearly and conspicuously upon the labels of all packages containing flour as modified the statement "This flour contains improvers."

China.—No government laws have yet been promulgated in respect of treatment by chemical improvers of flour. Bleaching is practiced in many mills, the old fashioned Altag process (nitrogen peroxide) being still in force.

Colombia.—Bleaching is permitted; no regulations control the process.

Costa Rica.—There are no regulations regarding the bleaching of flour, except that flours which circulate in commerce must not be bleached by harmful methods.

Cuba.—Bleached flour may be imported into Cuba without restriction. The Cuban Sanitary Regulations provide that "Ordinary bread destined for public sale must be made from wheat flour recently made without any added material or signs of deterioration and without having been submitted to any process of bleaching for the purpose of disguiting the time of milling." Efforts have been made to have the government interpret this regulation as a prohibition against the use of bleached flour. Here again, the government has refused to accept this interpretation and states that bleaching is only prohibited when it is done for the purpose of hiding the date of milling and for making old, deteriorated flour appear of good quality.

Denmark.—Flour containing persulphate is prohibited.

Ecuador.—There are no regulations either prohibiting or permitting the importation or use of bleached flour.

Eire.—There is no prohibition on the use of chemical improvers and bleachers of which the following are those principally used: nitrogen peroxide, chlorine, nitrogen trichloride, benzoyl peroxide, ammonium persulphate and acid calcium phosphate.

France.—Legislation does not mention specifically that bleaching of flour is forbidden. It is considered that the legislation forbidding the use of chemical products in flour effectively establishes such prohibition.

French West Indies.—While French legislation does not mention specifically that bleaching of flour is forbidden, it is considered that the legislation forbidding the use of chemical products in flour effectively establishes such prohibition.

Germany.—All forms of bleaching are permitted.

Greece.—Preparations based on the salts of sulphate and superphosphate of ammonia or of lime, as well as other chemicals, used for bleaching flour, are prohibited.

Guatemala.—The Sanitary Code does not specifically mention the use of bleaching materials in flour. However, it states that the "Adulteration of the natural properties of foods, beverages and similar products is prohibited, as is also coloration with poisonous or harmful products, whether their toxic or harmful effect is direct or indirect."

Hong Kong.—No regulations are involved; whether the flour is bleached or unbleached is not of consequence under the Pure Foods Regulations. It is a matter between the individual buyer and the mill or export merchant source of supply.

Italy.—Bleaching of flour is allowed; no specific regulations as to permitted agents or amounts.

Netherlands.—Bleaching of flour is permitted provided the bleached product does not contain any harmful ingredient. However, there may be present in 100 milligrams of wheat flour 20 grams of a mixture consisting of 15 grams of benzoyl peroxide and 18.5 grams of calcium phosphate. Other agents allowed are: 1 gramme of orthoand metatartaric peroxide, mixed with 20 grams of wheat grits or with 10 grams of calcium phosphate; 25 grams of a mixture of equal parts of ammonium persulphate and calcium phosphate, and 1 gramme of ascorbic acid.

New Zealand.—Flour must not be artificially bleached.

Pakistan.—As patents exist for bleaching and maturing the flour it can be presumed that bleaching in Pakistan is practised to a certain extent.

Philippines.—Flour bleached with nitrogen peroxide may not be imported.

Portugal.—No information is available on bleaching flour.

Spain.—Regulations do not permit the bleaching of flour with any kind of whitening substances but "in some parts of Spain flour is bleached by subjecting it to rays of artificial light for a certain length of time."

Sweden.—Bleaching is permitted with the exception of the use of persulphate.

Switzerland.—Bleaching is prohibited.

Union of South Africa.—Flour milled in the Union may be treated only with peroxide of nitrogen generated by electricity, the treatment being regulated and restricted so that the total nitrates (calculated as sodium nitrate) in the treated flour shall not exceed six parts per million. The use of other bleaching agents or so called improvers is prohibited.

Turkey.—Under Turkish law no bleaching of flour is allowed.

Venezuela.—There appear to be no regulations regarding the bleaching of flour except that the flour must not be bleached by bromates, persulphates and other oxidizers that may contribute to its breadmaking value.

United Kingdom Wheat Acreage

Note: Total area under grain crops in England and Wales in 1943 and 1944 was greater than at any time since agricultural statistics were tabled. The maximum wartime acreage in wheat was the highest since 1874, in barley since 1901, in oats since 1918. The maximum wheat acreage was reached in the crisis year of 1941, viz. 3,411,500 acres (1906's omitted). **Source:** The Northwestern Miller.

Year—	Area acres	Crops bu.	Yields per acre bu.
1940	1,941	34,744	33.6
1943	1,378	41,183	27.1
1944	1,183	42,179	34.8
1940	1,888	61,599	32.3
1945	1,358	51,860	34.8
1944	1,258	118,180	36.6
1943	1,441	139,600	37.4
1942	1,518	95,460	33.1
1941	2,345	75,840	31.6

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[Flour Union Ltd.]

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Amsterdam-C.
Netherlands

Board of directors: Dirk J. Glasz
Thys P. Glasz
Managing director: Jaap S. Wiegersma

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References: The Northwestern Miller
Guaranty Trust Co. of New York, N.Y.

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Affiliated With

G. Daloze Grain Agency S.A. Antwerp (Belgium)

39, Longue Rue Neuve

Reference: THE NORTHWESTERN MILLER, MINNEAPOLIS, (Minn.)

Regulations Governing Self-Rising Flour

Belgium and Luxembourg—There is no objection to the sale of self-rising flour which contains baking powder or other leavening preparations, provided the leavening agents are not considered detrimental to public health. No certificates of analysis or quality are required.

Brazil—There is no objection to self-rising flour. However, the leavening agent must conform to the regulations on the subject. The pure food law prohibits the importation and sale of food preparations containing salts of aluminum, thus limiting the leavening agents that may be used in self-rising flour to the cream of tartar type.

Bulgaria—Self-rising flour is permissible insofar as it does not contain any harmful leavening agents.

Canada—Self-rising flour may contain baking powder but must be so marked.

Colombia—There are no restrictions on self-rising flour or the use of particular leavening agents.

Costa Rica—There appear to be no restrictions on self-rising flour.

Cuba—The importation of self-rising flour is not prohibited. The Department of Sanitation has prohibited the importation of certain types of baking powder which contain alum, aluminum sulphate and similar compounds.

Ecuador—There is no prohibition on the importation of self-rising flour. There are no regulations on the type of leavening permitted except that all food products imported into Ecuador must not be injurious to health. Fresh yeast destined solely for the baking industry should be accompanied by an official certificate of purity issued at the place of origin and authenticated by the Ecuadoran Consul at the port of embarkation.

France—Legislation does not mention specifically that the sale of self-rising flour is forbidden, but it is considered that the legislation forbidding the use of chemical products in flour effectively establishes such prohibition.

French West Indies—Sale of self-rising flour is effectively forbidden by the decree of April 11, 1912, which prohibits the use of chemical products in foodstuffs. Grocers are allowed to sell chemical leavening agents for family use in the making of pastry. Bakers and pastry shops are not allowed to use self-rising flour nor to sell this product.

Greece—"Flour shall not be altered in any way nor deteriorated and shall be free of any adulteration to conceal its alteration or to make it appear as a flour of superior quality." This provision is interpreted to meaning that inclusion of baking powder and other leavening preparations in the flour is not permitted.

Guatemala—The Sanitary Code does not specifically mention any type of flour or leavening. There has apparently been no restriction on the importation of yeast and baking powder since Nov. 18, 1931, when bakery regulations were amended to leave out the provision prohibiting "the use of all imported yeast and baking powder."

Italy—The importation or sale of wheat flour containing any foreign substance whatsoever is prohibited. This provision prevents the importation of self-rising flour. The exact substances prohibited are "mineral substances, such as alum, copper sulphate, zinc sulphate, lain, chalk, gypsum or in any way adulterated with extraneous powders." However, special pastry or confectionery flour and pancake flours in small packages are not considered as falling under this prohibition, the customs having ruled that such flours be classed for customs purposes as "starches and flours specially prepared, or simply put up in small containers or packages of any kind for alimentary use," with about five times as high a duty as ordinary wheat flour.

Netherlands—Self-rising flour may be imported and sold under monopoly control provided the leavening agent is not one forbidden by law. (Self-rising flour must contain not more than 15 grams of starch and not over 1 gram of a harmless leaven to 100 grams of bolted flour.)

New Zealand—Self-rising flour is flour to which the ingredients of baking powder have been added. It must liberate not less than 1.84 parts per centum by weight of carbon dioxide when moistened and heated, and it must contain not more than 1/16 of one part per centum of sulphates calculated as calcium sulphate. It must not contain any other added substance.

Portugal—Self-rising flour must not contain any harmful leavening agents. Alum baking powders are not permitted.

Spain—Self-rising flours containing baking powder or other leavening agents may be sold in Spain provided they are designated as food preparations and contain no harmful substances.

Sweden—There are no regulations forbidding the use of self-rising flours which include baking powder or other leavening preparations, but these must be sold with declarations as to contents in order to avoid penalty.

Switzerland—Self-rising flour must contain no combinations of ammonia (with the exception of carbonate of ammonia), nor combinations of aluminum, nor substances which release oxygen, such as perchlorates and chlorates, perbromates and bromates, persulphates, etc., nor even sulphates, oxalic acid, soap or mineral substances (argil, carbonate of lime, insoluble phosphates, infusorial earth or sand).

Union of South Africa—Self-rising flour means the pure, sound, boiled product or finely ground wheat with the addition of an aerating agent. Self-rising flour is sold in packages of 4 oz., 8 oz., 1 lb., or any integral number of pounds.

Venezuela—There appear to be no restrictions on self-rising flour. In general, food products offered for sale which contain components, must so state that fact on the label.

Yugoslavia—Only such leavening agents are permitted which are found to contain a normal power of fermentation and are not mixed with chalk, plaster, saccharine or "other matters harmful to health."

Import Regulations

China—Provisional foreign trade regulations governing the North China Area and the East China Area were announced respectively in Tientsin on March 15, 1949, and in Shanghai on June 6, 1949. Under the Tientsin regulations, imported goods are divided into three categories: (1) dutiable, (2) duty-free and (3) prohibited imports. Under the Shanghai regulations, imports are also divided into three groups: (1) goods permitted to be imported by firms supplying their own foreign exchange, (2) goods imported with a special permit by state-owned trading organizations, and (3) prohibited imports.

Wheat, flour and bran are all included under the list of banned imports under the foregoing regulations.

Costa Rica—Under the present exchange control system, import permits are not required, but each import order must be registered with the Exchange Control Board in order for the importer to be eligible to receive foreign exchange for payment. Imports are classified into four categories according to essentiality; wheat and wheat flour both fall in the highest "Preferential" class, but bran does not appear in any list. Exchange may be bought for purchase of preferential imports at the official selling rate of 5.67 colones per dollar, and no colon deposit is now necessary at the time of ordering products in this group, which are, in general, the only ones for which exchange may be made available on a letter of credit basis.

Ecuador—All flour shipped to Ecuador, must be accompanied by a certificate of analysis by the competent authority of the place of origin, which has been authenticated by the Ecuadoran Consul at the port of embarkation, without prejudice to the right of the customs authorities to verify, when they see fit, the correctness of the analysis. All goods imported must be covered by an import license. Import licenses are readily granted when flour is not under export license in the U.S. And when there is not an over-supply within the country.

French West Indies—All importers are required to procure an import license prior to the placement of orders for merchandise abroad.

Gibraltar and Malta—Most of the importing trade is conducted through agents established by American manufacturers. Malta prohibits the importation of wheaten flour containing less than 15% by weight of wet gluten. A few local firms buy for their own account.

Hong Kong—It is understood that Hong Kong's requirements of wheat and flour are to be met by Australia; therefore, American wheat and flour will not be granted an import license by the Colony's Department of Commerce and Industry. In transit shipments of American wheat and flour, however, may be made.

Malaya and Singapore—As a result of the current intensification of the sterling area dollar problem, the governments of Malaya and Singapore have revised their import control schedule, according to special re-

strictive treatment to imports from the U.S., the Philippines, Japan, Canada and other dollar areas in the Western Hemisphere. Until further notice, the importation of wheat, flour and bran, from hard currency areas is prohibited, according to the latest regulations.

Nicaragua—Prior import permits are needed for imports into Nicaragua, according to present exchange control regulations. Imported products are classified into four categories according to essentiality; wheat flour is classified in the essential group, second highest category, but wheat and bran do not appear in the lists. A deposit in cordobas of 15% of the c.i.f. value is required for imports of essential products.

Paraguay—All goods imported into Paraguay are subject to import restrictions as a result of exchange control. The Paraguayan importer must obtain an exchange contract for the amount of exchange needed before placing a purchase order abroad. The Central Bank is the exchange control agency and at the present time little or no dollar exchange is being granted for imports of wheat or wheat products from the U.S.

Philippines—Imports of flour are restricted to 15% of imports during 1948.

Union of South Africa—Permit required for importation of wheat and wheat products. Imports of macaroni, spaghetti and vermicelli are prohibited except by special only "in exceptional circumstances" permit issuable by the Director of Imports

Netherlands Flour Controls

Up to 1931 wheat and flour imports into Holland consisted of about 75% grain and 25% flour. Under free trading the Netherlands consumers preferred 25% imported flour and 75% home milled. In 1931 the government introduced a mixing-in law which reduced the possibilities for import flour. However, this Wheat Law of 1931 is no longer in force and the importation of flour is now only governed by the amount of allocations granted.

Methods of purchase—Although all Netherlands wheat and wheat flour purchases from the U.S. are financed by dollars provided under the auspices of the Economic Cooperation Administration, the Dutch importers have obtained government approval to a plan for the division of the procurement authorizations for flour among the individual importers, thus enabling them to resume buying direct from their mill connections in the U.S.

The importers concerned in the arrangement are registered with the Importbloembureau (Flour Import Bureau) and, through the government, with the International Wheat Council in London, so that all their purchases are accepted on account of the Dutch quota under the agreement. The Flour Import Bureau, with offices at Prins Hendrikkade 24/25, Amsterdam, maintains close contact with the government in all matters appertaining to the importation and distribution of flour and through it the imported flour business is still conducted under the general control of the government. As soon as the procurement authorization for wheat flour has been announced and divided among the importers who are participating in the scheme, the government empowers the importers to start buying at their own discretion, although the prevailing shortage of dollars necessitates the making of certain restrictions. Rotterdam and all shipments from the Gulf have to be made exclusively in conference steamers. Payment is made in New York through credits opened by the Nederlandse Handelmaatschappij N.V., for account of the individual importers in U.S. currency against a full set of "on board" bills of lading and commercial invoices, insurance policy, weight certificate and mill or official analysis certificate in duplicate. All contracts stipulate "freight collect, payable in Dutch currency" so that freight must be always deducted from invoice and is paid in Holland.

Quality—The importers are allowed to buy hard wheat flour and soft wheat flour of 72% extraction while in general such qualities may be bought which are essential for the special purposes for which imported flour is used in the Netherlands. All analyses are on a 14% moisture basis while the flour may only be shipped in jute bags, normally bags of 16 kilos (118 lb.).

Terms of purchase—It has been agreed that all purchases in general will be made under the terms and rules of the Flour Contract of the London Flour Trade Assn. (Canadian and U.S. Flour Contracts) and that arbitration, if any, be in London. It is agreed that the price of all contracts is consistent with the wheat price specified in or determined under the International Wheat Agreement while sales can only be

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considered final when confirmed by the CCC and the Wheat Council.

Insurance—This is to be covered by the sellers who require from buyers a standing instruction to cover "all risks, including market and risk of floating mines, exclusive war risk" at the lowest available competitive rate in accordance with prevailing ECA regulations. This insurance should cover the risk from the time the goods leave the mill in the U.S. until the final destination in Holland.

Distribution of flour—This is made through the Flour Import Bureau by the importers who can sell the flour they have purchased, in accordance with prewar practice, to their baker customers and those sections of industry requiring imported flour, for which they receive special coupons from the government, as imported flour is still rationed.

Duty—The first 11,000 metric tons of flour imported into the Netherlands in any one year is free of duty but remaining imports bear a duty of 1%. Flour imported from all countries and not exclusively U.S. flour, ranks for relief from duty and any imports from other sources will accordingly lessen the requirements from U.S. mills.

The provisions detailed above are necessarily general and it is stressed that each importer has his own requirements concerning quality and certain other factors. Mills are recommended to communicate with their Dutch importing connections for clarification and for greater details.

Flour Trade in Germany

Prewar—Imports of wheat flour into Germany were very small after 1927 due to a new duty tariff which was introduced in order to protect German agriculture and the German milling industry. Imports of flour after 1931 were practically nil because Germany was striving for self sufficiency. This same 1927 tariff is still in force, although fundamental alterations are expected for 1948.

Postwar—In normal times Germany always produced sufficient wheat to cover her own requirements. Most agricultural products are produced in the eastern part of Germany which since the end of the war has been occupied by the Russians. None of the production of the Russian zone of Germany is being sent to the western part of Germany. In 1945 the Allies immediately started importing wheat and wheat flour into western Germany for the prevention of riots and epidemics. No details are available for the eastern zone.

Flour Imports—The following quantities of wheat flour have been imported into western Germany since the end of the war:

1945-46 approximately	1.1 mil. metric tons
1946-47 approximately	1.5 mil. metric tons
1947-48 approximately	400,000 metric tons
1948-49 approximately	350,000 metric tons

Practically all of this came from the U.S. No flour has come into Germany since February, 1949, in order to protect the German milling industry the capacity of which suffices to fulfil the requirements of western Germany.

Purchase and Distribution—The above quantities were bought and imported by the U.S. army and handed over for distribution to German importers. The distribution has been carried out under the control of the German Board for Food and Agriculture in cooperation with the Association of German Grain and Flour Importers. All of these imports were free of duty.

Prices—The exact price which Germany had to pay for these postwar flour imports is not known to the German public. Selling prices were fixed by the German Board and the Allied Military Government respectively. This inland selling price, the considerably below world market price. Importers distributing these flour imports received a small margin out of the selling price. No regular imports of flour through private channels and with private capital have been effected so far and German importers have been distributors only.

Future flour imports most probably will be on an individual and private basis again. As the inland selling price is below world market price the corresponding subsidies, have to be fixed by the German government and the Allied Central Authorities before such individual imports can start.

The 11½% under ECA did not apply in Germany while flour was imported by the Organization for Government Aid and Relief in Occupied Areas. It is presumed that in the course of 1950 wheat flour imports into Germany will be reversed. Accordingly nothing can be said yet as to the quantities, prices and subsidies involved. Such imports will depend upon the application of the 11½% clause to Germany's ECA appropriation.

Flour Trade in Norway

Normal importation of wheat flour into Norway in prewar days amounted to 35,000 to 40,000 tons annually and was mainly limited to protein-rich flour from the United States and Canada, consisting of types which experience over a number of years had proved suitable to this market. The flour was bought from United States and Canadian mills by the State Grain Corp. (Statens Kornforretning), which has been the sole buyer since 1918, with the exception of two years, 1937-1938, when there was an interval of free trade. The import figures given above included European flour up to about 10,000 tons per year.

The import figure for the first 11 months of 1948 was 38,748 tons wheat flour. The figures for the corresponding periods of 1947 and 1946 were 34,434 tons and 28,719 tons, respectively. The high figure for 1947 was due to comparatively larger quantities of flour than wheat being allocated.

Methods of Buying—All buying is done by the State Grain Corp. Oslo (Statens Kornforretning). The institution, when intending to buy, notifies agents, who in turn make their milling connections for offers. Payment takes place by cash against documents in New York, mainly under ECA. All sales are made on f.a.s. basis, the buyer providing for ocean freight. The buyer also covers war and marine insurances. No special contract is used, years of experience having built up complete confidence between buyer and seller. Buying is mainly done direct from mills, only seldom from exporters, but always through Norwegian agents.

London Flour Contract

The full text of the Flour Contract of the London Flour Trade Assn. appears in previous issues of the Almanack and may be consulted there by those who have occasion to examine its terms. Copies may be obtained upon request to The Northwestern Miller or any of its branch offices. The contract is not now in use, even by the British Ministry of Food, as a special contract has been devised for use in connection with the Canadian-U.K. Wheat Agreement. Some other European countries, such as Holland, base their flour contracts on the London contract and more general reference to the London contract may again be required if and when private trade is restored.

United Kingdom Imports

Note: Wheat and flour, by crop years, ending Aug. 31, 000's omitted. Source: The Northwestern Miller.

	Wheat, bu.	Flour, bbl.	Total as wheat, bu.
1949	171,648	4,219	216,814
1948	148,432	9,661	196,207
1947	153,776	8,611	192,670
1946	126,072	7,316	159,136
1945	122,637	6,294	166,465
1944	106,728	8,947	146,439
1943	121,366	8,201	168,272
1942	138,178	4,205	149,368
1941	201,326	5,890	238,241
1940	214,816	6,588	244,607
1939	188,616	4,190	216,871
1938	189,762	4,387	209,443
1937	156,134	4,799	207,726
1936	191,496	5,942	216,276
1935	184,820	4,610	207,806
1934	198,440	4,181	217,220
1933	202,504	3,245	226,608
1932	224,472	6,588	250,313
1931	214,820	6,278	243,231
1930	187,070	6,430	216,455
1929	194,774	4,969	217,133
1928	189,948	5,668	211,204
1927	199,402	6,446	226,466
1926	187,416	5,732	213,166
1925	194,445	6,235	222,507
1924	207,679	5,734	223,481

United Kingdom Corn Imports

Note: In bushels. Source: British Government Trade Returns extracted by The Northwestern Miller.

Country of origin—	1947	1948	1949
British countries		70,113	137,724
Russia		1,180,914	1,801,824
Roumania		1,794,257	
U. S. A.	4,182,248		2,468,891
Argentina	12,146,379	12,582,162	15,597,542
Other foreign countries	1,216,126	56,438	3,681,714
	17,845,753	16,684,874	23,188,095

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Danish Controls for Flour

The Danish government controls imports and exports through an institution known as "Varedistributoratet," with some 900 employees. The banks and money are controlled by Danmarks Nationalbank. No change in this situation is expected until the balance between imports and exports becomes normal.

Flour Imports Banned—The import of flour into Denmark was stopped on the outbreak of World War II and has not been resumed. Denmark now produces enough bread grain to cover Danish needs but this necessitates the bread being made from soft wheat and soft rye.

Prewar Flour Buying Methods—Previous to the war the flour import trade in Denmark was done through flour mill agents, who were in constant cable communication with their flour mill connections in the United States and Canada. The flour agents sold the flour to the various importers, who took up the documents. The flour was sold c.i.f. Danish ports and delivered in cotton bags of 100 kilos (220½ lbs) and 50 kilos (110¼ lbs). Prices were quoted per 100 kilos. Insurance cover was against "all risks." No specific contract form was used but short sales contracts bore the usual strike clauses. Arbitration clauses also were included in the contract, some with buyer's option of arbitration either in New York or London; others, for arbitration in Copenhagen. It is hoped that eventually there will be a return to direct trading under these terms.

Flour Importers' Association—The interests of the flour agents and the flour importers are looked after and safeguarded by a flour importers' association known as "Forenigen af Danmarks Importører af Grundstoffer i Milleranchen," whose officers are president, Hubert Justesen, Brede, Jutland; Copenhagen vice president Troels Foss, Kongensnytvorvet 17, Copenhagen.

Flour Trade in Finland

Control—Finland, formerly an important buyer of imported flour, is expected to retain government control of grain and associated products until the end of 1947. Consideration will then be given to the advisability of the return of the trade to private hands. The scarcity of foreign currency is the limiting factor on progress at the present time and in any event observers do not anticipate any relaxations until the amounts due to Russia in respect of war damage are paid. Completion of this indemnification is set for Sept. 19, 1947.

Wheat—Russia is the major supplier of wheat to the Finnish mills at the present time, total deliveries for 1946 amounting to 160,000 metric tons, the balance of requirements totaling 3,000 tons coming from the Argentine. The major portion of requirements for 1946 will continue to come from Russia with some small amounts from the Argentine. The outturn from the 1946 home crop was less than expected, adverse weather affecting both quality and quantity. The difficulty was heightened by the loss of more than 15% of the grain growing area to Russia as part of the war settlement.

Grist—The proportion of home grown wheat in the grist is set at 40%, but this may be increased in the event of a satisfactory harvest in 1946. Imports of wheat are expected, however, to remain steady at 50% of requirements. Russia ceiling flour extraction rates were withdrawn in November, 1946, and millers were left free to meet the desires of their customers.

During the war a smooth quality of flour was substituted for the previously popular granular variety but as a result of the preference expressed by the consumers, mills, the most important of which are controlled by two competitive societies, S.O.K. and O.T.K., have returned to the granular type.

United Kingdom Food Imports

Note: In long tons. Source: The Northwestern Miller.

	Wheat & flour	Rice, other grains & pulses	Maize & maize meal	Other animal feeding-stuffs
1939	3,576,000	120,000	742,000	616,000
1940	3,819,000	83,000	1,344,000	614,000
1941	4,043,000	75,000	917,000	612,000
1942	3,927,000	75,000	1,161,000	515,000
1943	4,207,000	82,000	844,000	198,000
1944	3,923,000	113,000	184,000	97,000
1945	3,975,000	216,000	64,000	12,000
1946	3,494,000	184,000	135,000	74,000
1947	3,098,000	314,000	702,000	325,000
1948	3,331,000	1,096,000	2,193,000	1,068,000
Avge—				
1934-38	3,451,000	1,424,000	2,894,000	1,718,000

Flour Trade in India

Flour mills in India have to mill various types of flour according to local customs, and there is no fixed rate of extraction. At present flour mills in this country are manufacturing whole meal flour only which is used for making Chapattee (unleavened bread) which are freshly baked prior to consumption. This whole meal flour is most popular for this purpose. Flour as known in western countries is not being manufactured at present as there is a ban by the government on the production of fines. Flour milled from barley is sold in markets but sold separately and is not popular with the public. Indian flour mills are at present working under capacity and so far as is known no new mills are being planned or under construction. Milling machinery and or new, is allowed to be imported only after obtaining an import license from the Chief Controller of Imports, Government of India, New Delhi.

India Flour and Grain Imports

Note: By the year, April 1 through March 31, in long tons: Source: The Northwestern Miller.

Grain, pulse and flour—	1946-47	1947-48	1948-49
Barley	65,831	37,986	18,847
Dwarf (dry)	89	4,247	2,242
Jowar and bajra	159	14,794	6,724
Rice in the husk	198,984	35,442	2
Rice hulled husk, from Burma	76,904	204,331	204,337
Rice not in husk, from other countries	48,741	84,381	133,085
Wheat	328,162	136,141	795,331
Wheat flour	37,248	19,139	83,493
Other meal	244,419	193,518	223,812

Australian Flour Exports

Note: Australian wheat flour exports by countries of destination, by crop years, in 100-lb. sacks, 000's omitted. Source: Quarterly Summary of Australian Statistics.

Country—	1945-46	1946-47	1947-48	1948-49
U. K.	84	2,004	840	4,300
Aden	229		720	780
Burma		120	440	120
Ceylon	3,845	3,120	3,596	2,760
Hong Kong	160	800	440	200
India	1,900	1,000	1,160	1,440
Malaya	2,189	2,099	2,720	1,840
Mauritius	484	400	520	480
New Zealand	128	840	...	...
Pacific Islands (British)	224	240	320	240
(Foreign)	128	200	...	...
Un. of S. Africa	93	160	...	...
Port. E. Africa	80		...	...
Other British Countries	240	440	280	720
China	...	760	...	...
Egypt	...	...	1,340	880
Fr. Indo-China	40	120	200	120
Madagascar	40	40	120	40
Reunion Is.	...	40	80	80
Other French Dependencies	...	...	200	240
Greece	160		200	...
Other Foreign				
Japan	...	80	...	...
Countries	40	440	360	400
Brazil		...	...	160
Lebanon		...	...	880
Syria	160	40	...	...
Netherlands East Indies	40	80	600	...
Palestine			840	...
For. orders			400	20
	10,334	11,243	15,760	17,890

U.K. Wheat Products Imports

Note: In bbl. Source: The Northwestern Miller.

Meal and flour imported from	1947	*1948	1949
Australia	1,111,519	1,994,016	1,478,594
Canada	7,262,434	7,258,814	4,344,259
Other British countries		211	194
U. S. A.	1,555,814	4,219	799,247
Argentina		174	.....
Other foreign countries	11	455	6
	10,314,780	9,188,214	6,722,800

*Includes semolina.

W. S. KIMPTON & SONS

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MELBOURNE, AUSTRALIA

Cables: "GLUTEN," Melbourne

Established 1899

Norenberg & Belsheim

Flour Specialists

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Bentley and Appendix
Acme

Cable Address: "Osieck," Amsterdam

A/S MERCATOR

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Florelius & Ulsteen A/S

Established 1913

OSLO, NORWAY

AGENTS

Flour — Semolina — Grain — Feed

Working Denmark, Finland, Norway, Sweden

Cable Address: "FLORMEL," OSLO

ANTH. JOHANSEN & CO.

Established 1883

Flour, Grain and Feed Agents

Skippergt. 7 OSLO, NORWAY

Cable Address: "Johnny"

Foreign Mill Capacity

Note: The flour milling capacity of European and other foreign countries as shown in the following table covers the more important mills in each country where figures are available. It would be impossible to estimate the total milling capacity of each country, particularly the more backward countries, because of the large number of very small mills, many of them with less than one sack (28 lb.) per hour capacity. For certain countries no milling capacity figures are available. **Source:** The Northwestern Miller.

	No. of mills	Est. daily cap., sacks (100 lb.)
Belgium	114	183,712
Bulgaria	400	34,318
Czechoslovakia	437	201,833
Denmark	76	...
France	1,144	618,160
Greece	114	71,496
Holland	90	87,728
Italy	457	95,848
Norway		42,777
Portugal	119	71,624
Rumania	314	133,218
Spain	754	34,804
Sweden	459	...
U. K. (Inc. Eire)	459	475,776
Yugoslavia	800	126,840
Australia	200	*7,818
New Zealand	50	*140
Palestine	18	*627
South Africa	73	2,578
Syria	15	330

*Estimated total capacity in 100 lb. sacks per hour.

Figures not available for Finland, Germany, Hungary, Switzerland and U. S. S. R.

United Kingdom Flour Output

Note: Excluding admixture of imported flour, in long tons, 000's omitted. Source: The Northwestern Miller.

1939	4,476	1941	4,605
1940	4,186	1942	4,391
1937	4,472	1938	4,819
1938	4,418	1935	4,855
1939	4,324	1936	4,879
1934	4,479	1940	4,911
1933	4,327	1933	4,939
1942	4,394		

Milling in the U.K.

The flour milling industry of the U.K. consists of about 200 mills, of which the majority are owned by one or the other of five important groups, namely, Ranks, Ltd., Spillers, Ltd., Hovis, Ltd., Co-operative Wholesale Society (England) and the Scottish Co-operative Wholesale Society. Some of the large independent millers also operate two or more mills. The total milling capacity of the country is around 100,000 long tons per week. Several large mills, mainly at the ports, were destroyed as a result of enemy action during the war, but the lost output was regained by the recommissioning of mills which were closed down by the Millers Mutual Assn., as redundant before the war. Capacity has also been maintained by the use of the high extraction rate of 85% instead of the prewar 70%. Several rebuilding schemes are in progress, the largest being sponsored by Ranks Ltd., Spillers Ltd. and the Scottish Cooperative Wholesale Society.

The storage capacity of the individual mills is always regarded as confidential and is never divulged to competitors or for publication.

United Kingdom Wheat Price

Note: By quarter of 480 lb. and per bushel of 60 lb. Source: The Northwestern Miller.

	Per qr. £	s.	d.	Per bu.		Per qr. £	s.	d.	Per bu.
1948	1	19	7	1.33^{*}	1931	1	14	4	1.03
1946	1	11	6	1.12	1929	2	2	5	1.27½
1947	1	11	8	1.14½	1928	2	3	2	1.29½
1946	2	2	5	1.30	1927	2	8	4	1.41
1945	2	1	3	1.25	1926	2	11	3	1.55
1944	2	4	3	1.32½	1925	2	12	4	1.57
1943	2	10	9	1.19	1924	2	9	5	1.47½
1942	2	0	2	1.06½	1923	2	5	4	1.37
1941	2	1	10	1.15½	1922	2	7	8	1.43½
1940	2	3	4	1.30	1921	3	11	11	2.14½
1939	2	1	8	1.22	1920	4	9	8	2.42½
1938	1	9	8	0.97½	1919	3	12	11	2.14½
1937	1	8	3	1.20½	1918	3	12	8	2.14½
1936	1	11	1	0.93½	1917	3	18	6	2.30
1935	1	3	4	0.67½	1916	3	18	3	2.74½
1934	1	9	6	0.87	1915	3	18	9	1.88
1933	1	3	11	0.62½	1914	3	18	1	1.61½
1932	1	3	4	0.76	1913	3	11	8	0.91
1931	1	4	8	0.75½	1912	3	14	3	1.03½

*Exchange rate, $4.40 to £1.

U.K. Landing & Storage Charges

Note: Landing and storage charges for wheat and flour per long ton. Source: The Northwestern Miller.

LONDON

WHEAT—	Per ton (2,240 lb.) s.	d.
Working out charges, in bulk	1	4
Landing charges, including 17 days' free storage	1	9
Storage charges per week	0	4
FLOUR—		
When housed at Royal Victoria and Albert, King George V or Tilbury docks, and the vessel discharges in the same dock; landing, wharfage, weighing, housing, reweighing and delivery within 21 days from date of ship's report	7	4
An allowance of 1s per ton will be made off this rate for goods delivered by railway trucks in these docks.		
When housed at the East, West or South West India or Millwall docks, and the vessel discharges in the same dock; landing, wharfage, weighing, housing, reweighing and delivery within 21 days from date of ship's report	8	0
An allowance of 2s per ton will be made off this rate for goods delivered by railway truck in these docks.		
When housed at London, St. Katharine or Surrey Commercial Docks, and the vessel discharges in the same dock; landing, wharfage weighing, housing, reweighing and delivery within 21 days from date of ship's report	8	8
When not housed at the dock where the vessel discharges; landing, wharfage, weighing, housing, reweighing and delivery within 21 days from date of ship's report	8	8
Rent per week after 21 days from date of ship's report	0	4½

The foregoing rates include insurance of the ordinary fire risks, but the liability of the Port Authority can in no case exceed the market value of the goods immediately anterior to the fire. The rates and charges are subject to an increase of 21% on rent and 14% on other charges.

LIVERPOOL

WHEAT—	Per ton (2,240 lb.) s.	d.
Cost of putting wheat into store Liverpool or Birkenhead—		
Cargo	10	1
Parcel	13	7
FLOUR—		
Dock and lock fees	7	4.8
Master porterage	3	7.4
Cartage	4	10½
R.H.T. (L.P.) public warehouse	6	2
Rent in public warehouse, per week	2	5
Storage in rail warehouse	1	4
Rent in rail warehouse, per week	0	11

BRISTOL (AVONMOUTH)

WHEAT (in bulk)—	Per ton (2,240 lb.) s.	d.
Port dues (plus 10%)	1	9
Landing charges—to rail or road vehicle (including [illegible] (plus 42½%)	5	0
Landing charges—to barges (in bulk) direct (plus 42½%)	2	[illegible]
Landing charges—to warehouse (plus 47½%)	4	3
Storage cost per week	0	3½
FLOUR—		
Port dues (plus 10%)	2	3
Landing charges—		
To rail direct (plus 37½%)	2	3
To road vehicle direct (plus 37½%)	3	3
To quay (plus 37½%)	0	2
To warehouse (plus 37½%)	3	6
Storage cost per week	0	4½

DUBLIN

FLOUR—	Per ton (2,240 lb.) s.	d.
Harbor dues (plus 16⅔%)	0	3
Landing charges—ship and rail to store	2	11

BELFAST

FLOUR—	Per ton (2,240 lb.) s.	d.
Landing charges	4	5
Harbor dues (plus 16⅔%)	0	3

Sales Under International Wheat Agreement

Importing countries	Guaranteed purchases	Exporting countries—total sales, 1,000 bu. United States* Wheat	Flour	Total	Australia†	Canada†	Finland†	Total
Austria	11,022	1,365	1,228	2,594	.....	.....	.....	2,594
Belgium	20,208	4,429	16	5,444	.....	5,748	.....	11,192
Bolivia	2,758	498	257	755	.....	108	.....	863
Brazil	13,324	.....	.....	.....	.....	.....	.....	.....
Ceylon	4,498	.....	.....	.....	4,498	.....	.....	4,498
Costa Rica‡	1,202	.....	.....	.....	.....	.....	.....	.....
Cuba	7,452	18	1,938	1,953	.....	3,446	.....	5,399
Denmark	1,617	.....	.....	.....	.....	232	.....	232
Dom. Republic	734	.....	87	87	.....	456	.....	456
Ecuador	1,197	.....	818	818	.....	341	.....	1,159
Egypt	8,918	.....	.....	.....	8,844	1,008	.....	7,872
El Salvador	494	22	334	187	.....	113	.....	451
Greece	15,738	8,522	892	15,214	.....	.....	.....	15,214
Guatemala	387	.....	287	287	.....	116	.....	403
Haiti	1,038	.....	93	93	.....	945	.....	1,038
India	18,287	.....	.....	.....	18,274	.....	.....	18,274
Ireland	18,194	1,832	108	2,411	.....	2,343	.....	4,754
Israel	4,144	275	382	756	328	3,844	.....	4,928
Italy	40,418	4,279	798	7,082	.....	.....	.....	7,082
Lebanon	1,388	.....	.....	.....	.....	.....	.....	.....
Liberia§	37	.....	.....	.....	.....	.....	.....	.....
Mexico	9,189	4,212	.....	4,212	.....	334	.....	4,542
Netherlands	28,731	15,949	1,683	18,758	1,904	181	1,479	15,633
New Zealand	4,383	.....	.....	.....	33	.....	.....	33
Nicaragua	294	.....	215	215	.....	89	.....	304
Norway	7,718	1,279	2,278	4,654	112	1,113	.....	4,314
Panama	424	.....	84	84	.....	319	.....	403
Peru	4,812	2,413	.....	2,413	.....	35	.....	2,448
Philippines	7,292	.....	231	231	4	133	.....	368
Portugal	3,144	1,585	794	4,164	32	172	.....	4,368
Saudi Arabia	1,837	37	271	308	19	253	.....	580
Sweden	2,758	.....	.....	.....	1,002	.....	.....	1,002
Switzerland	6,470	.....	.....	.....	.....	4,988	.....	4,988
Un. of South Africa	11,008	.....	.....	.....	2,060	5,406	.....	7,466
U. K.	177,089	11,841	2,781	14,626	18,278	136,781	1,727	166,408
Venezuela	4,777	.....	818	818	.....	3,954	.....	4,772
Total	458,209	73,594	16,475	89,971	74,758	166,222	3,187	333,141
Guaranteed quantities (exporting countries)				164,706	69,283	203,860	3,239	454,288
Balance				78,835	5,527	38,638	153	121,453

*Sales confirmed by CCC Aug. 1, 1948, through March 31, 1950.

†Sales recorded by Wheat Council Aug. 1, 1948, through March 31, 1950.

‡Has acceded to agreement but not deposited instrument of acceptance with the Department.

§Unofficial quantities.

United Kingdom Wheat Imports

Note: In bushels. Source: British Government Trade Returns extracted by The Northwestern Miller.

Country of origin	1947	1948	1949
Australia	.....	28,772,829	20,472,792
Canada	128,311,126	123,315,591	136,932,158
Other British countries	.....	23,484	4
U. S. A.	12,816,204	312,919	13,356,932
Argentina	15,348,387	3,917,979	.....
Other foreign countries	332,202	879,218	1,133,334
	156,772,919	157,221,541	170,896,220

United Kingdom Flour Exports

Note: In long tons, 000's omitted. Source: The Northwestern Miller

1940	9.1	1947	78.0
1941	8.6	1948	117.8
1942	8.2	1949	129.7
1943	46.4	1950	144.8
1944	106.3	1951	155.0

The principal markets for flour export were certain Scandinavian countries and those colonial and foreign territories in which European consumers of flour were too small numerically to warrant the establishment of a home milling industry. These territories included British West Indies, Gibraltar, Canaries and Madeira.

United Kingdom Feed Imports

Note: In tons. Source: The Northwestern Miller.

	1947	1948	1949
Cereal by products—			
Bran and pollard	73,604	112,832	66,717
Rice bran, rice meal (feed cake)			
Broken rice	42,172	42,195	45,254
All other cereal	158	2	3,147
Oil seed cake, meal (except fish meal)—			
Cottonseed cake and meal	14,239	21,192	32,841
Linseed cake, meal	141,418	277,278	88,254
All other animal feeds	24,216	34,648	42,875

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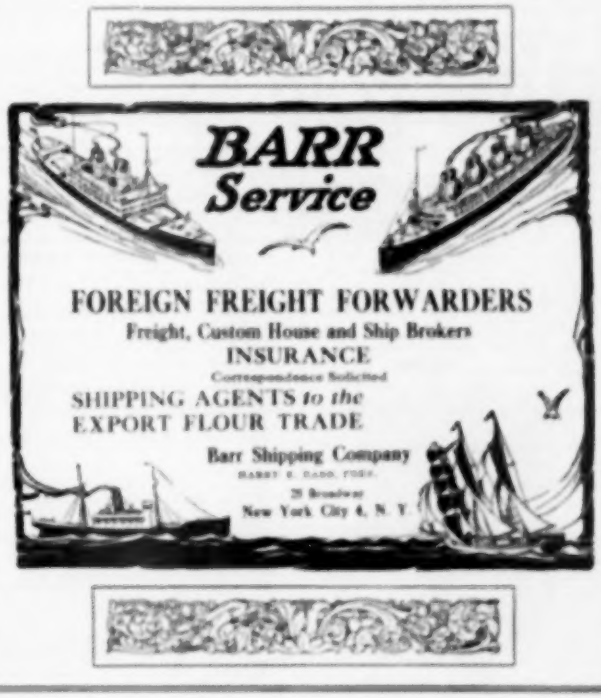

TRADE ASSOCIATIONS and Their OFFICERS

FLOUR MILLING AND DISTRIBUTING

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GRAIN AND FEED INDUSTRIES

★ ★ ★

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American Association of Cereal Chemists, Pacific Northwest Section—Secretary, Floyd Claypool, Centennial Flouring Mills Co., P.O. Box 2159, Spokane, Wash.

American Association of Cereal Chemists, Pioneer Section—Secretary, Luther L. Lyon, University of Wichita, Foundation for Industrial Research, Wichita 11, Kansas.

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American Seed Trade Assn.—Secretary, William Heckendorn, 20 N. La Salle St., Chicago 2, Ill.

American Soybean Assn.—Secretary, George M. Strayer, Strayer Seed Farms, Hudson, Iowa.

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Central Retail Feed Association, Inc.—Secretary, David K. Steenbergh, The Feed Bag, 1712 W. St. Paul Ave., Milwaukee 3, Wis.

Cereal Institute, Inc.—Secretary, G. Barnard Clifford, The Cream of Wheat Corp., 730 Stinson Blvd., Minneapolis 13, Minn.

Chicago Feed Club — Secretary, Ted Williams, R. G. James Co., Chicago, Ill.

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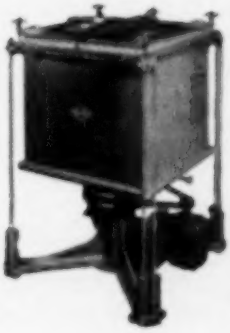

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American Institute of Baking—Secretary, Paul Chapman, 1135 Fullerton Ave., Chicago 14, Ill.

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National Bakers Supply House Assn.—Secretary, Henry Kingston, Room 828, 81 East Lake St., Chicago, Ill.

National Preservers Assn.—Secretary, John C. Fosgate, P.O. Box 2873, Orlando, Fla.

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Canadian Seed Growers, Alberta Branch—Secretary, J. E. Birdsall, Edmonton, Alberta, Canada.

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Ontario Retail Feed Dealers Assn.—Secretary, Murray H. McPhail, 48 Yonge St., Toronto 1, Ont., Canada.

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The word "corn" in the titles of European trade associations signifies that the members carry on business in all grains. Corn is used as a general term to denote all grains.

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